

109TH CONGRESS  
1ST SESSION

# H. R. 3039

To enact title 51, United States Code, “National and Commercial Space Programs”, as positive law.

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## IN THE HOUSE OF REPRESENTATIVES

JUNE 22, 2005

Mr. SENSENBRENNER (for himself and Mr. CONYERS) introduced the following bill; which was referred to the Committee on the Judiciary

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## A BILL

To enact title 51, United States Code, “National and Commercial Space Programs”, as positive law.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

### 3 **SECTION 1. TABLE OF CONTENTS.**

4 The table of contents for this Act is as follows:

- Sec. 1. Table of contents.
- Sec. 2. Purpose; conformity with original intent.
- Sec. 3. Enactment of title 51, United States Code.
- Sec. 4. Conforming amendments to other laws.
- Sec. 5. Transitional and savings provisions.
- Sec. 6. Repeals.

### 5 **SEC. 2. PURPOSE; CONFORMITY WITH ORIGINAL INTENT.**

6 (a) PURPOSE.—The purpose of this Act is to codify  
7 certain existing laws related to national and commercial

1 space programs as a positive law title of the United States  
2 Code.

3 (b) CONFORMITY WITH ORIGINAL INTENT.—In the  
4 codification of laws by this Act, the intent is to conform  
5 to the understood policy, intent, and purpose of Congress  
6 in the original enactments, with such amendments and  
7 corrections as will remove ambiguities, contradictions, and  
8 other imperfections, in accordance with section 205(c)(1)  
9 of House Resolution No. 988, 93d Congress, as enacted  
10 into law by Public Law 93–554 (2 U.S.C. 285b(1)).

11 **SEC. 3. ENACTMENT OF TITLE 51, UNITED STATES CODE.**

12 Title 51, United States Code, “National and Com-  
13 mercial Space Programs”, is enacted as follows:

14 **TITLE 51—NATIONAL AND COM-**  
15 **MERCIAL SPACE PROGRAMS**

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16 **CHAPTER 1—DEFINITIONS**

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101. Definitions.

17 **§ 101. Definitions**

18 In this title:

1           (1) ADMINISTRATION.—The term “Administra-  
 2           tion” means the National Aeronautics and Space  
 3           Administration.

4           (2) ADMINISTRATOR.—The term “Adminis-  
 5           trator” means the Administrator of the National  
 6           Aeronautics and Space Administration.

7           **CHAPTER 3—NATIONAL AERONAUTICS**  
 8           **AND SPACE PROGRAM**

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# 1 SUBCHAPTER I—SHORT TITLE, DECLARATION 2 OF POLICY, AND DEFINITIONS

## 3 **§ 301. Short title**

4 This chapter may be cited as the “National Aero-  
5 nautics and Space Act”.

## 6 **§ 302. Congressional declaration of policy and pur- 7 pose**

8 (a) DEVOTION OF SPACE ACTIVITIES TO PEACEFUL  
9 PURPOSES FOR BENEFIT OF ALL HUMANKIND.—Con-  
10 gress declares that it is the policy of the United States  
11 that activities in space should be devoted to peaceful pur-  
12 poses for the benefit of all humankind.

13 (b) AERONAUTICAL AND SPACE ACTIVITIES FOR  
14 WELFARE AND SECURITY OF UNITED STATES.—Congress  
15 declares that the general welfare and security of the  
16 United States require that adequate provision be made for  
17 aeronautical and space activities. Congress further de-  
18 clares that such activities shall be the responsibility of,  
19 and shall be directed by, a civilian agency exercising con-  
20 trol over aeronautical and space activities sponsored by the  
21 United States, except that activities peculiar to or pri-  
22 marily associated with the development of weapons sys-  
23 tems, military operations, or the defense of the United  
24 States (including the research and development necessary

1 to make effective provision for the defense of the United  
2 States) shall be the responsibility of, and shall be directed  
3 by, the Department of Defense; and that determination  
4 as to which agency has responsibility for and direction of  
5 any such activity shall be made by the President.

6 (c) COMMERCIAL USE OF SPACE.—Congress declares  
7 that the general welfare of the United States requires that  
8 the Administration seek and encourage, to the maximum  
9 extent possible, the fullest commercial use of space.

10 (d) OBJECTIVES OF AERONAUTICAL AND SPACE AC-  
11 TIVITIES.—The aeronautical and space activities of the  
12 United States shall be conducted so as to contribute mate-  
13 rially to one or more of the following objectives:

14 (1) The expansion of human knowledge of the  
15 Earth and of phenomena in the atmosphere and  
16 space.

17 (2) The improvement of the usefulness, per-  
18 formance, speed, safety, and efficiency of aero-  
19 nautical and space vehicles.

20 (3) The development and operation of vehicles  
21 capable of carrying instruments, equipment, sup-  
22 plies, and living organisms through space.

23 (4) The establishment of long-range studies of  
24 the potential benefits to be gained from, the oppor-  
25 tunities for, and the problems involved in the utiliza-

tion of aeronautical and space activities for peaceful and scientific purposes.

(5) The preservation of the role of the United States as a leader in aeronautical and space science and technology and in the application thereof to the conduct of peaceful activities within and outside the atmosphere.

(6) The making available to agencies directly concerned with national defense of discoveries that have military value or significance, and the furnishing by such agencies, to the civilian agency established to direct and control nonmilitary aeronautical and space activities, of information as to discoveries which have value or significance to that agency.

(7) Cooperation by the United States with other nations and groups of nations in work done pursuant to this chapter and in the peaceful application of the results thereof.

(8) The most effective utilization of the scientific and engineering resources of the United States, with close cooperation among all interested agencies of the United States in order to avoid unnecessary duplication of effort, facilities, and equipment.

1           (9) The preservation of the United States pre-  
2           eminent position in aeronautics and space through  
3           research and technology development related to asso-  
4           ciated manufacturing processes.

5           (e) GROUND PROPULSION SYSTEMS RESEARCH AND  
6 DEVELOPMENT.—Congress declares that the general wel-  
7 fare of the United States requires that the unique com-  
8 petence in scientific and engineering systems of the Ad-  
9 ministration also be directed toward ground propulsion  
10 systems research and development. Such development  
11 shall be conducted so as to contribute to the objectives  
12 of developing energy and petroleum-conserving ground  
13 propulsion systems, and of minimizing the environmental  
14 degradation caused by such systems.

15          (f) BIOENGINEERING RESEARCH, DEVELOPMENT,  
16 AND DEMONSTRATION PROGRAMS.—Congress declares  
17 that the general welfare of the United States requires that  
18 the unique competence of the Administration in science  
19 and engineering systems be directed to assisting in bio-  
20 engineering research, development, and demonstration  
21 programs designed to alleviate and minimize the effects  
22 of disability.

23          (g) PURPOSE OF CHAPTER.—It is the purpose of this  
24 chapter to carry out and effectuate the policies declared  
25 in subsections (a) to (f).

1 **§ 303. Definitions**

2 In this chapter:

3 (1) AERONAUTICAL AND SPACE ACTIVITIES.—

4 The term “aeronautical and space activities”  
5 means—

6 (A) research into, and the solution of,  
7 problems of flight within and outside the  
8 Earth’s atmosphere;

9 (B) the development, construction, testing,  
10 and operation for research purposes of aero-  
11 nautical and space vehicles;

12 (C) the operation of a space transportation  
13 system including the space shuttle, upper  
14 stages, space platforms, and related equipment;  
15 and

16 (D) such other activities as may be re-  
17 quired for the exploration of space.

18 (2) AERONAUTICAL AND SPACE VEHICLES.—

19 The term “aeronautical and space vehicles” means  
20 aircraft, missiles, satellites, and other space vehicles,  
21 manned and unmanned, together with related equip-  
22 ment, devices, components, and parts.



1           SUBCHAPTER II—COORDINATION OF  
2           AERONAUTICAL AND SPACE ACTIVITIES  
3   **§ 311. National Aeronautics and Space Administra-**  
4           **tion**

5           (a) ESTABLISHMENT AND APPOINTMENT OF ADMIN-  
6   ISTRATOR.—There is established the National Aeronautics  
7   and Space Administration. The Administration shall be  
8   headed by an Administrator, who shall be appointed from  
9   civilian life by the President by and with the advice and  
10   consent of the Senate. Under the supervision and direction  
11   of the President, the Administrator shall be responsible  
12   for the exercise of all powers and the discharge of all du-  
13   ties of the Administration and shall have authority and  
14   control over all personnel and activities thereof.

15          (b) DEPUTY ADMINISTRATOR.—There shall be in the  
16   Administration a Deputy Administrator, who shall be ap-  
17   pointed from civilian life by the President by and with the  
18   advice and consent of the Senate. The Deputy Adminis-  
19   trator shall perform such duties and exercise such powers  
20   as the Administrator may prescribe. The Deputy Adminis-  
21   trator shall act for, and exercise the powers of, the Admin-  
22   istrator during the Administrator's absence or disability.

23          (c) RESTRICTION ON OTHER BUSINESS OR EMPLOY-  
24   MENT.—The Administrator and the Deputy Administrator

1 shall not engage in any other business, vocation, or em-  
2 ployment while serving as such.

3 **§ 312. Functions of the Administration**

4 (a) PLANNING, DIRECTING, AND CONDUCTING AERO-  
5 NAUTICAL AND SPACE ACTIVITIES.—The Administration,  
6 in order to carry out the purpose of this chapter, shall—

7 (1) plan, direct, and conduct aeronautical and  
8 space activities;

9 (2) arrange for participation by the scientific  
10 community in planning scientific measurements and  
11 observations to be made through use of aeronautical  
12 and space vehicles, and conduct or arrange for the  
13 conduct of such measurements and observations;

14 (3) provide for the widest practicable and ap-  
15 propriate dissemination of information concerning  
16 its activities and the results thereof;

17 (4) seek and encourage, to the maximum extent  
18 possible, the fullest commercial use of space; and

19 (5) encourage and provide for Federal Govern-  
20 ment use of commercially provided space services  
21 and hardware, consistent with the requirements of  
22 the Federal Government.

23 (b) RESEARCH AND DEVELOPMENT IN CERTAIN  
24 TECHNOLOGIES.—

1           (1) GROUND PROPULSION TECHNOLOGIES.—

2           The Administration shall, to the extent of appro-  
3           priated funds, initiate, support, and carry out such  
4           research, development, demonstration, and other re-  
5           lated activities in ground propulsion technologies as  
6           are provided for in sections 4 to 10 of the Electric  
7           and Hybrid Vehicle Research, Development, and  
8           Demonstration Act of 1976 (15 U.S.C. 2503 to  
9           2509).

10           (2) SOLAR HEATING AND COOLING TECH-  
11           NOLOGIES.—The Administration shall initiate, sup-  
12           port, and carry out such research, development,  
13           demonstrations, and other related activities in solar  
14           heating and cooling technologies (to the extent that  
15           funds are appropriated therefor) as are provided for  
16           in sections 5, 6, and 9 of the Solar Heating and  
17           Cooling Demonstration Act of 1974 (42 U.S.C.  
18           5503, 5504, 5507).

19   **§ 313. Powers of the Administration in performance**  
20                           **of functions**

21           (a) RULES AND REGULATIONS.—In the performance  
22           of its functions, the Administration is authorized to make,  
23           promulgate, issue, rescind, and amend rules and regula-  
24           tions governing the manner of its operations and the exer-  
25           cise of the powers vested in it by law.

1       (b) OFFICERS AND EMPLOYEES.—In the perform-  
2       ance of its functions, the Administration is authorized to  
3       appoint and fix the compensation of officers and employ-  
4       ees as may be necessary to carry out such functions. The  
5       officers and employees shall be appointed in accordance  
6       with the civil service laws and their compensation fixed  
7       in accordance with chapter 51 and subchapter III of chap-  
8       ter 53 of title 5, except that—

9               (1) to the extent the Administrator deems such  
10       action necessary to the discharge of the Administra-  
11       tor’s responsibilities, the Administrator may appoint  
12       not more than 425 of the scientific, engineering, and  
13       administrative personnel of the Administration with-  
14       out regard to such laws, and may fix the compensa-  
15       tion of such personnel not in excess of the rate of  
16       basic pay payable for level III of the Executive  
17       Schedule; and

18              (2) to the extent the Administrator deems such  
19       action necessary to recruit specially qualified sci-  
20       entific and engineering talent, the Administrator  
21       may establish the entrance grade for scientific and  
22       engineering personnel without previous service in the  
23       Federal Government at a level up to 2 grades higher  
24       than the grade provided for such personnel under

1 the General Schedule, and fix their compensation ac-  
2 cordingly.

3 (c) PROPERTY.—In the performance of its functions,  
4 the Administration is authorized—

5 (1) to acquire (by purchase, lease, condemna-  
6 tion, or otherwise), construct, improve, repair, oper-  
7 ate, and maintain laboratories, research and testing  
8 sites and facilities, aeronautical and space vehicles,  
9 quarters and related accommodations for employees  
10 and dependents of employees of the Administration,  
11 and such other real and personal property (including  
12 patents), or any interest therein, as the Administra-  
13 tion deems necessary within and outside the conti-  
14 nental United States;

15 (2) to acquire by lease or otherwise, through  
16 the Administrator of General Services, buildings or  
17 parts of buildings in the District of Columbia for the  
18 use of the Administration for a period not to exceed  
19 10 years without regard to section 8141 of title 40;

20 (3) to lease to others such real and personal  
21 property;

22 (4) to sell and otherwise dispose of real and  
23 personal property (including patents and rights  
24 thereunder) in accordance with the provisions of  
25 chapters 1 to 11 of title 40 and in accordance with

1 title III of the Federal Property and Administrative  
2 Services Act of 1949 (41 U.S.C. 251 et seq.); and  
3 (5) to provide by contract or otherwise for cafe-  
4 terias and other necessary facilities for the welfare  
5 of employees of the Administration at its installa-  
6 tions and purchase and maintain equipment there-  
7 for.

8 (d) GIFTS.—In the performance of its functions, the  
9 Administration is authorized to accept unconditional gifts  
10 or donations of services, money, or property, real, per-  
11 sonal, or mixed, tangible or intangible.

12 (e) CONTRACTS, LEASES, AND AGREEMENTS.—In  
13 the performance of its functions, the Administration is au-  
14 thorized, without regard to subsections (a) and (b) of sec-  
15 tion 3324 of title 31, to enter into and perform such con-  
16 tracts, leases, cooperative agreements, or other trans-  
17 actions as may be necessary in the conduct of its work  
18 and on such terms as it may deem appropriate, with any  
19 agency or instrumentality of the United States, or with  
20 any State, Territory, or possession, or with any political  
21 subdivision thereof, or with any person, firm, association,  
22 corporation, or educational institution. To the maximum  
23 extent practicable and consistent with the accomplishment  
24 of the purpose of this chapter, such contracts, leases,  
25 agreements, and other transactions shall be allocated by

1 the Administrator in a manner which will enable small-  
2 business concerns to participate equitably and proportion-  
3 ately in the conduct of the work of the Administration.

4 (f) COOPERATION WITH FEDERAL AGENCIES AND  
5 OTHERS.—In the performance of its functions, the Ad-  
6 ministration is authorized to use, with their consent, the  
7 services, equipment, personnel, and facilities of Federal  
8 and other agencies with or without reimbursement, and  
9 on a similar basis to cooperate with other public and pri-  
10 vate agencies and instrumentalities in the use of services,  
11 equipment, and facilities. Each department and agency of  
12 the Federal Government shall cooperate fully with the Ad-  
13 ministration in making its services, equipment, personnel,  
14 and facilities available to the Administration, and any  
15 such department or agency is authorized, notwithstanding  
16 any other provision of law, to transfer to or to receive from  
17 the Administration, without reimbursement, aeronautical  
18 and space vehicles, and supplies and equipment other than  
19 administrative supplies or equipment.

20 (g) ADVISORY COMMITTEES.—In the performance of  
21 its functions, the Administration is authorized to appoint  
22 such advisory committees as may be appropriate for pur-  
23 poses of consultation and advice to the Administration.

24 (h) OFFICES AND PROCEDURES.—In the perform-  
25 ance of its functions, the Administration is authorized to

1 establish within the Administration such offices and proce-  
2 dures as may be appropriate to provide for the greatest  
3 possible coordination of its activities under this chapter  
4 with related scientific and other activities being carried on  
5 by other public and private agencies and organizations.

6 (i) TEMPORARY OR INTERMITTENT SERVICES OF EX-  
7 PERTS OR CONSULTANTS.—In the performance of its  
8 functions, the Administration is authorized to obtain serv-  
9 ices as provided by section 3109 of title 5, but at rates  
10 for individuals not to exceed the per diem rate equivalent  
11 to the maximum rate payable under section 5376 of title  
12 5.

13 (j) ALIENS.—In the performance of its functions, the  
14 Administration is authorized, when determined by the Ad-  
15 ministrator to be necessary, and subject to such security  
16 investigations as the Administrator may determine to be  
17 appropriate, to employ aliens without regard to statutory  
18 provisions prohibiting payment of compensation to aliens.

19 (k) CONCESSIONS FOR VISITORS' FACILITIES.—

20 (1) IN GENERAL.—In the performance of its  
21 functions, the Administration is authorized to pro-  
22 vide by concession, without regard to section 1302  
23 of title 40, on such terms as the Administrator may  
24 deem to be appropriate and necessary to protect the  
25 concessioner against loss of the concessioner's in-



1 vestment in property (but not anticipated profits) re-  
2 sulting from the Administration's discretionary acts  
3 and decisions, for the construction, maintenance,  
4 and operation of all manner of facilities and equip-  
5 ment for visitors to the several installations of the  
6 Administration and, in connection therewith, to pro-  
7 vide services incident to the dissemination of infor-  
8 mation concerning its activities to such visitors,  
9 without charge or with a reasonable charge therefor  
10 (with this authority being in addition to any other  
11 authority that the Administration may have to pro-  
12 vide facilities, equipment, and services for visitors to  
13 its installations).

14 (2) PUBLIC NOTICE AND DUE CONSIDERATION  
15 OF PROPOSALS.—A concession agreement under this  
16 subsection may be negotiated with any qualified pro-  
17 poser following due consideration of all proposals re-  
18 ceived after reasonable public notice of the intention  
19 to contract.

20 (3) REASONABLE OPPORTUNITY FOR PROFIT.—  
21 The concessioner shall be afforded a reasonable op-  
22 portunity to make a profit commensurate with the  
23 capital invested and the obligations assumed. The  
24 consideration paid by the concessioner for the con-  
25 cession shall be based on the probable value of the

1 opportunity and not on maximizing revenue to the  
2 United States.

3 (4) RECORDS AND ACCESS TO RECORDS.—Each  
4 concession agreement shall specify the manner in  
5 which the concessioner's records are to be main-  
6 tained, and shall provide for access to the records by  
7 the Administration and the Comptroller General of  
8 the United States for a period of 5 years after the  
9 close of the business year to which the records re-  
10 late.

11 (5) POSSESSORY INTERESTS.—A concessioner  
12 may be accorded a possessory interest, consisting of  
13 all incidents of ownership except legal title (which  
14 shall vest in the United States), in any structure,  
15 fixture, or improvement the concessioner constructs  
16 or locates upon land owned by the United States.  
17 With the approval of the Administration, such  
18 possessory interest may be assigned, transferred, en-  
19 cumbered, or relinquished by the concessioner, and,  
20 unless otherwise provided by contract, shall not be  
21 extinguished by the expiration or other termination  
22 of the concession and may not be taken for public  
23 use without just compensation.

24 (l) DETAILING MEMBERS OF ARMED SERVICES.—In  
25 the performance of its functions, the Administration is au-

1 thorized, with the approval of the President, to enter into  
2 cooperative agreements under which members of the  
3 Army, Navy, Air Force, and Marine Corps may be detailed  
4 by the appropriate Secretary for services in the perform-  
5 ance of functions under this chapter to the same extent  
6 as that to which they might be lawfully assigned in the  
7 Department of Defense.

8 (m) CLAIMS AGAINST THE UNITED STATES.—In the  
9 performance of its functions, the Administration is author-  
10 ized—

11 (1) to consider, ascertain, adjust, determine,  
12 settle, and pay, on behalf of the United States, in  
13 full satisfaction thereof, any claim for \$25,000 or  
14 less against the United States for bodily injury,  
15 death, or damage to or loss of real or personal prop-  
16 erty resulting from the conduct of the Administra-  
17 tion's functions as specified in section 312(a) of this  
18 title, where such claim is presented to the Adminis-  
19 tration in writing within 2 years after the accident  
20 or incident out of which the claim arises; and

21 (2) if the Administration considers that a claim  
22 in excess of \$25,000 is meritorious and would other-  
23 wise be covered by this subsection, to report the  
24 facts and circumstances to Congress for its consider-  
25 ation.

1   **§ 314. International cooperation**

2           The Administration, under the foreign policy guid-  
3   ance of the President, may engage in a program of inter-  
4   national cooperation in work done pursuant to this chap-  
5   ter, and in the peaceful application of the results thereof,  
6   pursuant to agreements made by the President with the  
7   advice and consent of the Senate.

8   **§ 315. Reports to Congress**

9           (a) PRESIDENTIAL REPORT.—The President shall  
10   transmit to Congress in May of each year a report, which  
11   shall include—

12           (1) a comprehensive description of the pro-  
13   grammed activities and the accomplishments of all  
14   agencies of the United States in the field of aero-  
15   nautics and space activities during the preceding fis-  
16   cal year; and

17           (2) an evaluation of such activities and accom-  
18   plishments in terms of the attainment of, or the fail-  
19   ure to attain, the objectives described in section  
20   302(d) of this title.

21           (b) RECOMMENDATIONS FOR ADDITIONAL LEGISLA-  
22   TION.—Any report made under this section shall contain  
23   such recommendations for additional legislation as the Ad-  
24   ministrator or the President may consider necessary or de-  
25   sirable for the attainment of the objectives described in  
26   section 302(d) of this title.

1       (c) CLASSIFIED INFORMATION.—No information that  
2 has been classified for reasons of national security shall  
3 be included in any report made under this section, unless  
4 the information has been declassified by, or pursuant to  
5 authorization given by, the President.

6 **§ 316. Disposal of excess land**

7       Notwithstanding the provisions of this or any other  
8 law, the Administration may not report to a disposal agen-  
9 cy as excess to the needs of the Administration any land  
10 having an estimated value in excess of \$50,000 that is  
11 owned by the United States and under the jurisdiction and  
12 control of the Administration, unless—

13           (1) a period of 30 days has passed after the re-  
14 ceipt by the Speaker and the Committee on Science  
15 of the House of Representatives and the President  
16 and the Committee on Commerce, Science, and  
17 Transportation of the Senate of a report by the Ad-  
18 ministrator or the Administrator's designee con-  
19 taining a full and complete statement of the action  
20 proposed to be taken and the facts and cir-  
21 cumstances relied upon in support of such action; or

22           (2) each such committee before the expiration  
23 of that period has transmitted to the Administrator  
24 written notice to the effect that the committee has  
25 no objection to the proposed action.

1 SUBCHAPTER III—GENERAL ADMINISTRATIVE  
2 PROVISIONS

3 **§ 331. Public access to information**

4 (a) PUBLIC INSPECTION.—Information obtained or  
5 developed by the Administrator in the performance of the  
6 Administrator’s functions under this chapter shall be  
7 made available for public inspection, except information—

8 (1) authorized or required by Federal statute to  
9 be withheld;

10 (2) classified to protect the national security; or

11 (3) described in subsection (b).

12 (b) SPECIAL HANDLING OF SECRET OR CONFIDEN-  
13 TIAL INFORMATION.—

14 (1) IN GENERAL.—The Administrator, for a pe-  
15 riod of up to 5 years after the development of infor-  
16 mation described in paragraph (2), may provide ap-  
17 propriate protections against the dissemination of  
18 such information, including exemption from sub-  
19 chapter II of chapter 5 of title 5.

20 (2) INFORMATION DESCRIBED.—Information  
21 referred to in paragraph (1) is information that re-  
22 sults from activities conducted under an agreement  
23 entered into under subsections (e) and (f) of section  
24 313 of this title, and that would be a trade secret  
25 or commercial or financial information that is privi-

1       leged or confidential under the meaning of section  
2       552(b)(4) of title 5 if the information had been ob-  
3       tained from a non-Federal party participating in  
4       such an agreement.

5       (c) COMMITTEES OF CONGRESS.—Nothing in this  
6       chapter authorizes the withholding of information by the  
7       Administrator from the duly authorized committees of  
8       Congress.

9       **§ 332. Security requirements**

10       The Administrator shall establish such security re-  
11       quirements, restrictions, and safeguards as the Adminis-  
12       trator deems necessary in the interest of the national secu-  
13       rity. The Administrator may arrange with the Director of  
14       the Office of Personnel Management for the conduct of  
15       such security or other personnel investigations of the Ad-  
16       ministration's officers, employees, and consultants, and its  
17       contractors and subcontractors and their officers and em-  
18       ployees, actual or prospective, as the Administrator deems  
19       appropriate. If any such investigation develops any data  
20       reflecting that the individual who is the subject of the in-  
21       vestigation is of questionable loyalty, the matter shall be  
22       referred to the Federal Bureau of Investigation for the  
23       conduct of a full field investigation, the results of which  
24       shall be furnished to the Administrator.

1 **§ 333. Permission to carry firearms**

2 As the Administrator deems necessary in the public  
3 interest, the Administrator may—

4 (1) direct officers and employees of the Admin-  
5 istration to carry firearms while in the conduct of  
6 their official duties; and

7 (2) authorize employees of contractors and sub-  
8 contractors of the Administration who are engaged  
9 in the protection of property owned by the United  
10 States, and located at facilities owned by or con-  
11 tracted to the United States, to carry firearms while  
12 in the conduct of their official duties.

13 **§ 334. Arrest authority**

14 Under regulations prescribed by the Administrator  
15 and approved by the Attorney General, employees of the  
16 Administration and of its contractors and subcontractors  
17 authorized to carry firearms under section 333 of this title  
18 may arrest without warrant for any offense against the  
19 United States committed in their presence, or for any fel-  
20 ony cognizable under the laws of the United States if they  
21 have reasonable grounds to believe that the person to be  
22 arrested has committed or is committing such felony. Per-  
23 sons granted authority to make arrests by this section may  
24 exercise that authority only while guarding and protecting  
25 property owned or leased by, or under the control of, the  
26 United States under the administration and control of the



1 Administration or one of its contractors or subcontractors,  
2 at facilities owned by or contracted to the Administration.

3 **§ 335. Property rights in inventions**

4 (a) DEFINITIONS.—In this section:

5 (1) CONTRACT.—The term “contract” means  
6 any actual or proposed contract, agreement, under-  
7 standing, or other arrangement, and includes any  
8 assignment, substitution of parties, or subcontract  
9 executed or entered into thereunder.

10 (2) MADE.—The term “made”, when used in  
11 relation to any invention, means the conception or  
12 first actual reduction to practice of such invention.

13 (3) PERSON.—The term “person” means any  
14 individual, partnership, corporation, association, in-  
15 stitution, or other entity.

16 (b) EXCLUSIVE PROPERTY OF UNITED STATES.—

17 (1) IN GENERAL.—An invention shall be the ex-  
18 clusive property of the United States if it is made  
19 in the performance of any work under any contract  
20 of the Administration, and the Administrator deter-  
21 mines that—

22 (A) the person who made the invention was  
23 employed or assigned to perform research, de-  
24 velopment, or exploration work and the inven-  
25 tion is related to the work the person was em-

1           employed or assigned to perform, or was within  
2           the scope of the person's employment duties,  
3           whether or not it was made during working  
4           hours, or with a contribution by the Govern-  
5           ment of the use of Government facilities, equip-  
6           ment, materials, allocated funds, information  
7           proprietary to the Government, or services of  
8           Government employees during working hours;  
9           or

10           (B) the person who made the invention  
11           was not employed or assigned to perform re-  
12           search, development, or exploration work, but  
13           the invention is nevertheless related to the con-  
14           tract, or to the work or duties the person was  
15           employed or assigned to perform, and was made  
16           during working hours, or with a contribution  
17           from the Government of the sort referred to in  
18           subparagraph (A).

19           (2) PATENT TO UNITED STATES.—If an inven-  
20           tion is the exclusive property of the United States  
21           under paragraph (1), and if such invention is pat-  
22           entable, a patent therefor shall be issued to the  
23           United States upon application made by the Admin-  
24           istrator, unless the Administrator waives all or any  
25           part of the rights of the United States to such in-

1       vention in conformity with the provisions of sub-  
2       section (g).

3       (c) CONTRACT PROVISIONS FOR FURNISHING RE-  
4       PORTS OF INVENTIONS, DISCOVERIES, IMPROVEMENTS,  
5       OR INNOVATIONS.—Each contract entered into by the Ad-  
6       ministrators with any party for the performance of any  
7       work shall contain effective provisions under which the  
8       party shall furnish promptly to the Administrator a writ-  
9       ten report containing full and complete technical informa-  
10      tion concerning any invention, discovery, improvement, or  
11      innovation which may be made in the performance of any  
12      such work.

13      (d) PATENT APPLICATION.—No patent may be  
14      issued to any applicant other than the Administrator for  
15      any invention which appears to the Under Secretary of  
16      Commerce for Intellectual Property and Director of the  
17      United States Patent and Trademark Office (hereafter in  
18      this section referred to as the “Director”) to have signifi-  
19      cant utility in the conduct of aeronautical and space activi-  
20      ties unless the applicant files with the Director, with the  
21      application or within 30 days after request therefor by the  
22      Director, a written statement executed under oath setting  
23      forth the full facts concerning the circumstances under  
24      which the invention was made and stating the relationship  
25      (if any) of the invention to the performance of any work

1 under any contract of the Administration. Copies of each  
2 such statement and the application to which it relates shall  
3 be transmitted forthwith by the Director to the Adminis-  
4 trator.

5 (e) ISSUANCE OF PATENT TO APPLICANT.—Upon  
6 any application as to which any such statement has been  
7 transmitted to the Administrator, the Director may, if the  
8 invention is patentable, issue a patent to the applicant un-  
9 less the Administrator, within 90 days after receipt of the  
10 application and statement, requests that the patent be  
11 issued to the Administrator on behalf of the United States.  
12 If, within such time, the Administrator files such a request  
13 with the Director, the Director shall transmit notice there-  
14 of to the applicant, and shall issue such patent to the Ad-  
15 ministrator unless the applicant within 30 days after re-  
16 ceipt of the notice requests a hearing before the Board  
17 of Patent Appeals and Interferences on the question  
18 whether the Administrator is entitled under this section  
19 to receive the patent. The Board may hear and determine,  
20 in accordance with rules and procedures established for  
21 interference cases, the question so presented, and its de-  
22 termination shall be subject to appeal by the applicant or  
23 by the Administrator to the United States Court of Ap-  
24 peals for the Federal Circuit in accordance with proce-

1 dures governing appeals from decisions of the Board of  
2 Patent Appeals and Interferences in other proceedings.

3       (f) SUBSEQUENT TRANSFER OF PATENT IN CASE OF  
4 FALSE REPRESENTATIONS.—Whenever a patent has been  
5 issued to an applicant in conformity with subsection (e),  
6 and the Administrator thereafter has reason to believe  
7 that the statement filed by the applicant in connection  
8 with the patent contained a false representation of a mate-  
9 rial fact, the Administrator, within 5 years after the date  
10 of issuance of the patent, may file with the Director a re-  
11 quest for the transfer to the Administrator of title to the  
12 patent on the records of the Director. Notice of any such  
13 request shall be transmitted by the Director to the owner  
14 of record of the patent, and title to the patent shall be  
15 so transferred to the Administrator unless, within 30 days  
16 after receipt of notice, the owner of record requests a hear-  
17 ing before the Board of Patent Appeals and Interferences  
18 on the question whether any such false representation was  
19 contained in the statement filed in connection with the  
20 patent. The question shall be heard and determined, and  
21 the determination shall be subject to review, in the manner  
22 prescribed by subsection (e) for questions arising there-  
23 under. A request made by the Administrator under this  
24 subsection for the transfer of title to a patent, and pros-  
25 ecution for the violation of any criminal statute, shall not

1 be barred by the failure of the Administrator to make a  
2 request under subsection (e) for the issuance of the patent  
3 to the Administrator, or by any notice previously given by  
4 the Administrator stating that the Administrator had no  
5 objection to the issuance of the patent to the applicant.

6 (g) WAIVER OF RIGHTS TO INVENTIONS.—Under  
7 such regulations in conformity with this subsection as the  
8 Administrator shall prescribe, the Administrator may  
9 waive all or any part of the rights of the United States  
10 under this section with respect to any invention or class  
11 of inventions made or which may be made by any person  
12 or class of persons in the performance of any work re-  
13 quired by any contract of the Administration if the Admin-  
14 istrator determines that the interests of the United States  
15 will be served thereby. Any such waiver may be made upon  
16 such terms and under such conditions as the Adminis-  
17 trator shall determine to be required for the protection  
18 of the interests of the United States. Each such waiver  
19 made with respect to any invention shall be subject to the  
20 reservation by the Administrator of an irrevocable, non-  
21 exclusive, nontransferable, royalty-free license for the  
22 practice of such invention throughout the world by or on  
23 behalf of the United States or any foreign government  
24 pursuant to any treaty or agreement with the United  
25 States. Each proposal for any waiver under this subsection

1 shall be referred to an Inventions and Contributions  
2 Board which shall be established by the Administrator  
3 within the Administration. Such Board shall accord to  
4 each interested party an opportunity for hearing, and shall  
5 transmit to the Administrator its findings of fact with re-  
6 spect to such proposal and its recommendations for action  
7 to be taken with respect thereto.

8 (h) PROTECTION OF TITLE.—The Administrator is  
9 authorized to take all suitable and necessary steps to pro-  
10 tect any invention or discovery to which the Administrator  
11 has title, and to require contractors or persons who retain  
12 title to inventions or discoveries under this section to pro-  
13 tect the inventions or discoveries to which the Administra-  
14 tion has or may acquire a license of use.

15 (i) ADMINISTRATION AS DEFENSE AGENCY.—The  
16 Administration shall be considered a defense agency of the  
17 United States for the purpose of chapter 17 of title 35.

18 (j) OBJECTS INTENDED FOR LAUNCH, LAUNCHED,  
19 OR ASSEMBLED IN OUTER SPACE.—Any object intended  
20 for launch, launched, or assembled in outer space shall be  
21 considered a vehicle for the purpose of section 272 of title  
22 35.

23 (k) USE OR MANUFACTURE OF PATENTED INVEN-  
24 TIONS INCORPORATED IN SPACE VEHICLES LAUNCHED  
25 FOR PERSONS OTHER THAN UNITED STATES.—The use

1 or manufacture of any patented invention incorporated in  
2 a space vehicle launched by the United States Government  
3 for a person other than the United States shall not be  
4 considered to be a use or manufacture by or for the United  
5 States within the meaning of section 1498(a) of title 28,  
6 unless the Administration gives an express authorization  
7 or consent for such use or manufacture.

8 **§ 336. Contributions awards**

9 (a) APPLICATIONS.—Subject to the provisions of this  
10 section, the Administrator is authorized, on the Adminis-  
11 trator's own initiative or on application of any person, to  
12 make a monetary award, in an amount and on terms the  
13 Administrator determines to be warranted, to any person  
14 (as defined by section 335(a) of this title) for any scientific  
15 or technical contribution to the Administration which is  
16 determined by the Administrator to have significant value  
17 in the conduct of aeronautical and space activities. Each  
18 application made for such an award shall be referred to  
19 the Inventions and Contributions Board established under  
20 section 335 of this title. Such Board shall accord to each  
21 applicant an opportunity for hearing on the application,  
22 and shall transmit to the Administrator its recommenda-  
23 tion as to the terms of the award, if any, to be made to  
24 the applicant for the contribution. In determining the



1 terms and conditions of an award the Administrator shall  
2 take into account—

3 (1) the value of the contribution to the United  
4 States;

5 (2) the aggregate amount of any sums which  
6 have been expended by the applicant for the develop-  
7 ment of the contribution;

8 (3) the amount of any compensation (other  
9 than salary received for services rendered as an offi-  
10 cer or employee of the Government) previously re-  
11 ceived by the applicant for or on account of the use  
12 of the contribution by the United States; and

13 (4) any other factors the Administrator deter-  
14 mines to be material.

15 (b) APPORTIONMENT OF AWARDS.—If more than one  
16 applicant under subsection (a) claims an interest in the  
17 same contribution, the Administrator shall ascertain and  
18 determine the respective interests of the applicants, and  
19 shall apportion any award to be made among the appli-  
20 cants in amounts the Administrator determines to be equi-  
21 table.

22 (c) SURRENDER OF OTHER CLAIMS.—No award may  
23 be made under subsection (a) unless the applicant surren-  
24 ders, by means the Administrator determines to be effec-  
25 tive, all claims that the applicant may have to receive any

1 compensation (other than the award made under this sec-  
 2 tion) for the use of the contribution or any element thereof  
 3 at any time by or on behalf of the United States, or by  
 4 or on behalf of any foreign government pursuant to a trea-  
 5 ty or agreement with the United States, within the United  
 6 States or at any other place.

7 (d) REPORT AND WAITING PERIOD.—No award may  
 8 be made under subsection (a) in an amount exceeding  
 9 \$100,000 unless the Administrator transmits to the ap-  
 10 propriate committees of Congress a full and complete re-  
 11 port concerning the amount and terms of, and the basis  
 12 for, the proposed award, and a period of 30 calendar days  
 13 of regular session of Congress expires after receipt of the  
 14 report by the committees.

15 **§ 337. Malpractice and negligence suits against**  
 16 **United States**

17 (a) EXCLUSIVE REMEDY.—The remedy against the  
 18 United States provided by sections 1346(b) and 2672 of  
 19 title 28, for damages for personal injury, including death,  
 20 caused by the negligent or wrongful act or omission of any  
 21 physician, dentist, nurse, pharmacist, or paramedical or  
 22 other supporting personnel (including medical and dental  
 23 technicians, nursing assistants, and therapists) of the Ad-  
 24 ministration in the performance of medical, dental, or re-  
 25 lated health care functions (including clinical studies and

1 investigations) while acting within the scope of such per-  
2 son's duties or employment therein or therefor shall be  
3 exclusive of any other civil action or proceeding by reason  
4 of the same subject matter against such person (or the  
5 estate of such person) whose act or omission gave rise to  
6 the action or proceeding.

7 (b) ATTORNEY GENERAL TO DEFEND ANY CIVIL AC-  
8 TION OR PROCEEDING FOR MALPRACTICE OR NEG-  
9 LIGENCE.—The Attorney General shall defend any civil  
10 action or proceeding brought in any court against any per-  
11 son referred to in subsection (a) (or the estate of such  
12 person) for any such injury. Any such person against  
13 whom such civil action or proceeding is brought shall de-  
14 liver within such time after date of service or knowledge  
15 of service as determined by the Attorney General, all proc-  
16 ess served upon such person or an attested true copy  
17 thereof to such person's immediate superior or to whom-  
18 ever was designated by the Administrator to receive such  
19 papers. Such person shall promptly furnish copies of the  
20 pleading and process therein to the United States Attor-  
21 ney for the district embracing the place wherein the pro-  
22 ceeding is brought, to the Attorney General, and to the  
23 Administrator.

24 (c) REMOVAL OF ACTIONS.—Upon a certification by  
25 the Attorney General that any person described in sub-

1 section (a) was acting in the scope of such person's duties  
2 or employment at the time of the incident out of which  
3 the suit arose, any such civil action or proceeding com-  
4 menced in a State court shall be removed without bond  
5 at any time before trial by the Attorney General to the  
6 district court of the United States of the district and divi-  
7 sion embracing the place wherein it is pending and the  
8 proceeding deemed a tort action brought against the  
9 United States under the provisions of title 28, and all ref-  
10 erences thereto. Should a district court of the United  
11 States determine, on a hearing on a motion to remand  
12 held before a trial on the merits, that the case so removed  
13 is one in which a remedy by suit within the meaning of  
14 subsection (a) is not available against the United States,  
15 the case shall be remanded to the State court.

16 (d) COMPROMISE OR SETTLEMENT OF CLAIMS.—The  
17 Attorney General may compromise or settle any claim as-  
18 serted in such civil action or proceeding in the manner  
19 provided in section 2677 of title 28, and with the same  
20 effect.

21 (e) APPLICABILITY OF OTHER PROVISIONS OF  
22 LAW.—For purposes of this section, the provisions of sec-  
23 tion 2680(h) of title 28 shall not apply to any cause of  
24 action arising out of a negligent or wrongful act or omis-  
25 sion in the performance of medical, dental, or related

1 health care functions (including clinical studies and inves-  
 2 tigations).

3 (f) LIABILITY INSURANCE FOR PERSONS ASSIGNED  
 4 TO FOREIGN COUNTRIES OR NON-FEDERAL AGENCIES.—  
 5 The Administrator or the Administrator’s designee may,  
 6 to the extent that the Administrator or the designee deems  
 7 appropriate, hold harmless or provide liability insurance  
 8 for any person described in subsection (a) for damages  
 9 for personal injury, including death, caused by such per-  
 10 son’s negligent or wrongful act or omission in the perform-  
 11 ance of medical, dental, or related health care functions  
 12 (including clinical studies and investigations) while acting  
 13 within the scope of such person’s duties if such person  
 14 is assigned to a foreign country or detailed for service with  
 15 other than a Federal department, agency, or instrumen-  
 16 tality or if the circumstances are such as are likely to pre-  
 17 clude the remedies of third persons against the United  
 18 States described in section 2679(b) of title 28, for such  
 19 damage or injury.

20 **§ 338. Insurance and indemnification**

21 (a) DEFINITIONS.—In this section:

22 (1) SPACE VEHICLE.—The term “space vehicle”  
 23 means an object intended for launch, launched, or  
 24 assembled in outer space, including the space shuttle  
 25 and other components of a space transportation sys-

1       tem, together with related equipment, devices, com-  
2       ponents, and parts.

3           (2) THIRD PARTY.—The term “third party”  
4       means any person who may institute a claim against  
5       a user for death, bodily injury, or loss of or damage  
6       to property.

7           (3) USER.—The term “user” includes anyone  
8       who enters into an agreement with the Administra-  
9       tion for use of all or a portion of a space vehicle,  
10      who owns or provides property to be flown on a  
11      space vehicle, or who employs a person to be flown  
12      on a space vehicle.

13      (b) AUTHORIZATION.—The Administration is author-  
14      ized on such terms and to the extent it may deem appro-  
15      priate to provide liability insurance for any user of a space  
16      vehicle to compensate all or a portion of claims by third  
17      parties for death, bodily injury, or loss of or damage to  
18      property resulting from activities carried on in connection  
19      with the launch, operations, or recovery of the space vehi-  
20      cle. Appropriations available to the Administration may be  
21      used to acquire such insurance, but such appropriations  
22      shall be reimbursed to the maximum extent practicable by  
23      the users under reimbursement policies established pursu-  
24      ant to section 313 of this title.

1       (c) INDEMNIFICATION.—Under such regulations in  
2 conformity with this section as the Administrator shall  
3 prescribe taking into account the availability, cost, and  
4 terms of liability insurance, any agreement between the  
5 Administration and a user of a space vehicle may provide  
6 that the United States will indemnify the user against  
7 claims (including reasonable expenses of litigation or set-  
8 tlement) by third parties for death, bodily injury, or loss  
9 of or damage to property resulting from activities carried  
10 on in connection with the launch, operations, or recovery  
11 of the space vehicle, but only to the extent that such  
12 claims are not compensated by liability insurance of the  
13 user. Such indemnification may be limited to claims re-  
14 sulting from other than the actual negligence or willful  
15 misconduct of the user.

16       (d) TERMS OF INDEMNIFICATION AGREEMENT.—An  
17 agreement made under subsection (c) that provides indem-  
18 nification must also provide for—

19               (1) notice to the United States of any claim or  
20       suit against the user for the death, bodily injury, or  
21       loss of or damage to the property; and

22               (2) control of or assistance in the defense by  
23       the United States, at its election, of that suit or  
24       claim.

1 (e) CERTIFICATION OF JUST AND REASONABLE  
 2 AMOUNT.—No payment may be made under subsection  
 3 (c) unless the Administrator or the Administrator’s des-  
 4 ignee certifies that the amount is just and reasonable.

5 (f) PAYMENTS.—Upon the approval by the Adminis-  
 6 trator, payments under subsection (c) may be made, at  
 7 the Administrator’s election, either from funds available  
 8 for research and development not otherwise obligated or  
 9 from funds appropriated for such payments.

#### 10 **§ 339. Insurance for experimental aerospace vehicles**

11 (a) DEFINITIONS.—In this section:

12 (1) COOPERATING PARTY.—The term “cooper-  
 13 ating party” means any person who enters into an  
 14 agreement with the Administration for the perform-  
 15 ance of cooperative scientific, aeronautical, or space  
 16 activities to carry out the purposes of this chapter.

17 (2) DEVELOPER.—The term “developer” means  
 18 a United States person (other than a natural per-  
 19 son) who—

20 (A) is a party to an agreement with the  
 21 Administration for the purpose of developing  
 22 new technology for an experimental aerospace  
 23 vehicle;

24 (B) owns or provides property to be flown  
 25 or situated on that vehicle; or



1 (C) employs a natural person to be flown  
2 on that vehicle.

3 (3) EXPERIMENTAL AEROSPACE VEHICLE.—

4 The term “experimental aerospace vehicle” means  
5 an object intended to be flown in, or launched into,  
6 orbital or suborbital flight for the purpose of dem-  
7 onstrating technologies necessary for a reusable  
8 launch vehicle, developed under an agreement be-  
9 tween the Administration and a developer.

10 (4) RELATED ENTITY.—The term “related enti-  
11 ty” includes a contractor or subcontractor at any  
12 tier, a supplier, a grantee, and an investigator or  
13 detailee.

14 (b) IN GENERAL.—The Administrator may provide li-  
15 ability insurance for, or indemnification to, the developer  
16 of an experimental aerospace vehicle developed or used in  
17 execution of an agreement between the Administration  
18 and the developer.

19 (c) TERMS AND CONDITIONS.—

20 (1) IN GENERAL.—Except as otherwise pro-  
21 vided in this section, the insurance and indemnifica-  
22 tion provided by the Administration under sub-  
23 section (b) to a developer shall be provided on the  
24 same terms and conditions as insurance and indem-  
25 nification is provided by the Administration under

1 section 338 of this title to the user of a space vehi-  
2 cle.

3 (2) INSURANCE.—

4 (A) IN GENERAL.—A developer shall ob-  
5 tain liability insurance or demonstrate financial  
6 responsibility in amounts to compensate for the  
7 maximum probable loss from claims by—

8 (i) a third party for death, bodily in-  
9 jury, or property damage, or loss resulting  
10 from an activity carried out in connection  
11 with the development or use of an experi-  
12 mental aerospace vehicle; and

13 (ii) the United States Government for  
14 damage or loss to Government property re-  
15 sulting from such an activity.

16 (B) MAXIMUM REQUIRED.—The Adminis-  
17 trator shall determine the amount of insurance  
18 required, but, except as provided in subpara-  
19 graph (C), that amount shall not be greater  
20 than the amount required under section  
21 70112(a)(3) of title 49 for a launch. The Ad-  
22 ministrator shall publish notice of the Adminis-  
23 trator's determination and the applicable  
24 amount or amounts in the Federal Register  
25 within 10 days after making the determination.

1 (C) INCREASE IN DOLLAR AMOUNTS.—The  
2 Administrator may increase the dollar amounts  
3 set forth in section 70112(a)(3)(A) of title 49  
4 for the purpose of applying that section under  
5 this section to a developer after consultation  
6 with the Comptroller General and such experts  
7 and consultants as may be appropriate, and  
8 after publishing notice of the increase in the  
9 Federal Register not less than 180 days before  
10 the increase goes into effect. The Administrator  
11 shall make available for public inspection, not  
12 later than the date of publication of such no-  
13 tice, a complete record of any correspondence  
14 received by the Administration, and a transcript  
15 of any meetings in which the Administration  
16 participated, regarding the proposed increase.

17 (D) SAFETY REVIEW REQUIRED BEFORE  
18 ADMINISTRATOR PROVIDES INSURANCE.—The  
19 Administrator may not provide liability insur-  
20 ance or indemnification under subsection (b)  
21 unless the developer establishes to the satisfac-  
22 tion of the Administrator that appropriate safe-  
23 ty procedures and practices are being followed  
24 in the development of the experimental aero-  
25 space vehicle.

1           (3) NO INDEMNIFICATION WITHOUT CROSS-  
2           WAIVER.—Notwithstanding subsection (b), the Ad-  
3           ministrator may not indemnify a developer of an ex-  
4           perimental aerospace vehicle under this section un-  
5           less there is an agreement between the Administra-  
6           tion and the developer described in subsection (d).

7           (4) APPLICATION OF CERTAIN PROCEDURES.—  
8           If the Administrator requests additional appropria-  
9           tions to make payments under this section, like the  
10          payments that may be made under section 338(c) of  
11          this title, then the request for those appropriations  
12          shall be made in accordance with the procedures es-  
13          tablished by subsections (d) and (e) of section 70113  
14          of title 49.

15         (d) CROSS-WAIVERS.—

16                 (1) ADMINISTRATOR AUTHORIZED TO WAIVE.—  
17                 The Administrator, on behalf of the United States,  
18                 and its departments, agencies, and instrumentalities,  
19                 may reciprocally waive claims with a developer or co-  
20                 operating party and with the related entities of that  
21                 developer or cooperating party under which each  
22                 party to the waiver agrees to be responsible, and  
23                 agrees to ensure that its own related entities are re-  
24                 sponsible, for damage or loss to its property for  
25                 which it is responsible, or for losses resulting from

1 any injury or death sustained by its own employees  
2 or agents, as a result of activities connected to the  
3 agreement or use of the experimental aerospace vehi-  
4 cle.

5 (2) LIMITATIONS.—

6 (A) CLAIMS.—A reciprocal waiver under  
7 paragraph (1) may not preclude a claim by any  
8 natural person (including a natural person who  
9 is an employee of the United States, the devel-  
10 oper, the cooperating party, or their respective  
11 subcontractors) or that natural person's estate,  
12 survivors, or subrogees for injury or death, ex-  
13 cept with respect to a subrogee that is a party  
14 to the waiver or has otherwise agreed to be  
15 bound by the terms of the waiver.

16 (B) LIABILITY FOR NEGLIGENCE.—A re-  
17 ciprocal waiver under paragraph (1) may not  
18 absolve any party of liability to any natural per-  
19 son (including a natural person who is an em-  
20 ployee of the United States, the developer, the  
21 cooperating party, or their respective sub-  
22 contractors) or such a natural person's estate,  
23 survivors, or subrogees for negligence, except  
24 with respect to a subrogee that is a party to the

1 waiver or has otherwise agreed to be bound by  
2 the terms of the waiver.

3 (C) INDEMNIFICATION FOR DAMAGES.—A  
4 reciprocal waiver under paragraph (1) may not  
5 be used as the basis of a claim by the Adminis-  
6 tration, or the developer or cooperating party,  
7 for indemnification against the other for dam-  
8 ages paid to a natural person, or that natural  
9 person's estate, survivors, or subrogees, for in-  
10 jury or death sustained by that natural person  
11 as a result of activities connected to the agree-  
12 ment or use of the experimental aerospace vehi-  
13 cle.

14 (D) WILLFUL MISCONDUCT.—A reciprocal  
15 waiver under paragraph (1) may not relieve the  
16 United States, the developer, the cooperating  
17 party, or the related entities of the developer or  
18 cooperating party, of liability for damage or loss  
19 resulting from willful misconduct.

20 (3) EFFECT ON PREVIOUS WAIVERS.—This sub-  
21 section applies to any waiver of claims entered into  
22 by the Administration without regard to the date on  
23 which the Administration entered into the waiver.

24 (e) RELATIONSHIP TO OTHER LAWS.—

1           (1) SECTION 338.—This section does not apply  
2           to any object, transaction, or operation to which sec-  
3           tion 338 of this title applies.

4           (2) CHAPTER 701 OF TITLE 49.—The Adminis-  
5           trator may not provide indemnification to a devel-  
6           oper under this section for launches subject to li-  
7           cense under section 70117(g)(1) of title 49.

8           (f) TERMINATION.—

9           (1) IN GENERAL.—The provisions of this sec-  
10          tion shall terminate on December 31, 2002, except  
11          that the Administrator may extend the termination  
12          date to a date not later than September 30, 2005,  
13          if the Administrator determines that such extension  
14          is in the interests of the United States.

15          (2) EFFECT OF TERMINATION ON AGREE-  
16          MENT.—The termination of this section shall not  
17          terminate or otherwise affect any cross-waiver agree-  
18          ment, insurance agreement, indemnification agree-  
19          ment, or other agreement entered into under this  
20          section, except as may be provided in that agree-  
21          ment.

## 22 **§ 340. Appropriations**

23          (a) AUTHORIZATION.—

24          (1) IN GENERAL.—There are authorized to be  
25          appropriated such sums as may be necessary to

1       carry out this chapter, except that nothing in this  
2       chapter shall authorize the appropriation of any  
3       amount for—

4               (A) the acquisition or condemnation of any  
5       real property; or

6               (B) any other item of a capital nature  
7       (such as plant or facility acquisition, construc-  
8       tion, or expansion) which exceeds \$250,000.

9       (2) AVAILABILITY.—Sums appropriated pursu-  
10      ant to this subsection for the construction of facili-  
11      ties, or for research and development activities, shall  
12      remain available until expended.

13      (b) USE OF FUNDS FOR EMERGENCY REPAIRS OF  
14      EXISTING FACILITIES.—Any funds appropriated for the  
15      construction of facilities may be used for emergency re-  
16      pairs of existing facilities when such existing facilities are  
17      made inoperative by major breakdown, accident, or other  
18      circumstances and such repairs are deemed by the Admin-  
19      istrator to be of greater urgency than the construction of  
20      new facilities.

21      (c) TERMINATION.—Notwithstanding any other pro-  
22      vision of law, the authorization of any appropriation to  
23      the Administration shall expire (unless an earlier expira-  
24      tion is specifically provided) at the close of the third fiscal  
25      year following the fiscal year in which the authorization



1 was enacted, to the extent that such appropriation has not  
2 theretofore actually been made.

3 **§ 341. Misuse of agency name and initials**

4 (a) IN GENERAL.—No person (as defined by section  
5 335(a) of this title) may knowingly use the words “Na-  
6 tional Aeronautics and Space Administration” or the let-  
7 ters “NASA”, or any combination, variation, or colorable  
8 imitation of those words or letters either alone or in com-  
9 bination with other words or letters—

10 (1) as a firm or business name in a manner  
11 reasonably calculated to convey the impression that  
12 the firm or business has some connection with, en-  
13 dorsement of, or authorization from, the Administra-  
14 tion which does not, in fact, exist; or

15 (2) in connection with any product or service  
16 being offered or made available to the public in a  
17 manner reasonably calculated to convey the impres-  
18 sion that the product or service has the authoriza-  
19 tion, support, sponsorship, or endorsement of, or the  
20 development, use, or manufacture by or on behalf of  
21 the Administration which does not, in fact, exist.

22 (b) CIVIL PROCEEDING TO ENJOIN.—Whenever it  
23 appears to the Attorney General that any person is en-  
24 gaged in an act or practice which constitutes or will con-  
25 stitute conduct prohibited by subsection (a), the Attorney

1 General may initiate a civil proceeding in a district court  
2 of the United States to enjoin such act or practice.

3 **§ 342. Contracts regarding expendable launch vehi-**  
4 **cles**

5 (a) COMMITMENTS BEYOND AVAILABLE APPROPRIA-  
6 TIONS.—The Administrator may enter into contracts for  
7 expendable launch vehicle services that are for periods in  
8 excess of the period for which funds are otherwise avail-  
9 able for obligation, provide for the payment for contingent  
10 liability which may accrue in excess of available appropria-  
11 tions in the event the Federal Government for its conven-  
12 ience terminates such contracts, and provide for advance  
13 payments reasonably related to launch vehicle and related  
14 equipment, fabrication, and acquisition costs, if any such  
15 contract limits the amount of the payments that the Gov-  
16 ernment is allowed to make under such contract to  
17 amounts provided in advance in appropriation Acts. Such  
18 contracts may be limited to sources within the United  
19 States when the Administrator determines that such limi-  
20 tation is in the public interest.

21 (b) TERMINATION IF FUNDS NOT AVAILABLE.—If  
22 funds are not available to continue any such contract, the  
23 contract shall be terminated for the convenience of the  
24 Government, and the costs of such contract shall be paid  
25 from appropriations originally available for performance

1 of the contract, from other unobligated appropriations  
2 currently available for the procurement of launch services,  
3 or from funds appropriated for such payments.

4 **§ 343. Full cost appropriations account structure**

5 (a) DESIGNATION OF ACCOUNTS FOR APPROPRIA-  
6 TIONS.—Appropriations for the Administration shall be  
7 made in 3 accounts, “Exploration capabilities”, “Science,  
8 aeronautics and exploration”, and an account for amounts  
9 appropriated for the necessary expenses of the Office of  
10 Inspector General. Appropriations shall remain available  
11 for 2 fiscal years. Each account shall include the planned  
12 full costs of the Administration’s related activities.

13 (b) TRANSFERS AMONG ACCOUNTS.—To ensure the  
14 safe, timely, and successful accomplishment of Adminis-  
15 tration missions, the Administration may transfer among  
16 accounts as necessary, amounts for—

- 17 (1) Federal salaries and benefits;
- 18 (2) training, travel, and awards;
- 19 (3) facility and related costs;
- 20 (4) information technology services;
- 21 (5) publishing services;
- 22 (6) science, engineering, fabricating, and testing  
23 services; and
- 24 (7) other administrative services.

1       (c) TRANSFER OF UNEXPIRED BALANCES.—The un-  
 2 expired balances of prior appropriations to the Adminis-  
 3 tration for activities authorized under this chapter may  
 4 be transferred to the new account established for such ac-  
 5 tivity in subsection (a). Balances so transferred may be  
 6 merged with funds in the newly established account and  
 7 thereafter may be accounted for as one fund under the  
 8 same terms and conditions.

9   **§ 344. Enhanced-use lease of real property dem-**  
 10                                   **onstration**

11       (a) IN GENERAL.—Notwithstanding any other provi-  
 12 sion of law, the Administrator may enter into a lease  
 13 under this section with any person or entity (including an-  
 14 other department or agency of the Federal Government  
 15 or an entity of a State or local government) with regard  
 16 to any real property under the jurisdiction of the Adminis-  
 17 trator at no more than 2 Administration centers.

18       (b) CONSIDERATION.—

19           (1) AMOUNT.—A person or entity entering into  
 20 a lease under this section shall provide consideration  
 21 for the lease at fair market value as determined by  
 22 the Administrator, except that in the case of a lease  
 23 to another department or agency of the Federal  
 24 Government, that department or agency shall pro-  
 25 vide consideration for the lease equal to the full

1 costs to the Administration in connection with the  
2 lease.

3 (2) FORM.—Consideration under this sub-  
4 section may take one or a combination of the fol-  
5 lowing forms:

6 (A) The payment of cash.

7 (B) The maintenance, construction, modi-  
8 fication, or improvement of facilities on real  
9 property under the jurisdiction of the Adminis-  
10 trator.

11 (C) The provision of services to the Admin-  
12 istration, including launch services and payload  
13 processing services.

14 (D) The use by the Administration of fa-  
15 cilities on the property.

16 (3) CASH CONSIDERATION.—

17 (A) UTILIZATION.—The Administrator  
18 may utilize amounts of cash consideration re-  
19 ceived under this subsection for a lease entered  
20 into under this section to cover the full costs to  
21 the Administration in connection with the lease.  
22 These funds shall remain available until ex-  
23 pended.

24 (B) AMOUNTS NOT UTILIZED.—Any  
25 amounts of cash consideration received under

1           this subsection that are not utilized in accord-  
2           ance with subparagraph (A) shall be deposited  
3           in a capital asset account to be established by  
4           the Administrator, shall be available for mainte-  
5           nance, capital revitalization, and improvements  
6           of the real property assets of the centers se-  
7           lected for this demonstration program, and  
8           shall remain available until expended.

9           (c) ADDITIONAL TERMS AND CONDITIONS.—The Ad-  
10          ministrator may require such terms and conditions in con-  
11          nection with a lease under this section as the Adminis-  
12          trator considers appropriate to protect the interests of the  
13          United States.

14          (d) RELATIONSHIP TO OTHER LEASE AUTHORITY.—  
15          The authority under this section to lease property of the  
16          Administration is in addition to any other authority to  
17          lease property of the Administration under law.

18          (e) LEASE RESTRICTIONS.—The Administration is  
19          not authorized to lease back property under this section  
20          during the term of the out-lease or enter into other con-  
21          tracts with the lessee respecting the property.

22          (f) PLAN AND REPORTING REQUIREMENTS.—At  
23          least 15 days prior to the Administrator entering into the  
24          first lease under this section, the Administrator shall sub-  
25          mit a plan to Congress on the Administration's proposed

1 implementation of this demonstration. The Administrator  
 2 shall submit an annual report by January 31 of each year  
 3 regarding the status of the demonstration.

4       SUBCHAPTER IV—UPPER ATMOSPHERE  
 5                               RESEARCH

6 **§ 361. Congressional declaration of purpose and pol-**  
 7                               **icy**

8       (a) PURPOSE.—The purpose of this subchapter is to  
 9 authorize and direct the Administration to develop and  
 10 carry out a comprehensive program of research, tech-  
 11 nology, and monitoring of the phenomena of the upper at-  
 12 mosphere so as to provide for an understanding of and  
 13 to maintain the chemical and physical integrity of the  
 14 Earth’s upper atmosphere.

15       (b) POLICY.—Congress declares that it is the policy  
 16 of the United States to undertake an immediate and ap-  
 17 propriate research, technology, and monitoring program  
 18 that will provide for understanding the physics and chem-  
 19 istry of the Earth’s upper atmosphere.

20 **§ 362. Definition of upper atmosphere**

21       In this subchapter, the term “upper atmosphere”  
 22 means that portion of the Earth’s sensible atmosphere  
 23 above the troposphere.

1 **§ 363. Program authorized**

2 (a) IN GENERAL.—In order to carry out the purposes  
3 of this subchapter, the Administration, in cooperation with  
4 other Federal agencies, shall initiate and carry out a pro-  
5 gram of research, technology, monitoring, and other ap-  
6 propriate activities directed to understand the physics and  
7 chemistry of the upper atmosphere.

8 (b) ACTIVITIES.—In carrying out the provisions of  
9 this subchapter, the Administration shall—

10 (1) arrange for participation by the scientific  
11 and engineering community, of both the Nation's in-  
12 dustrial organizations and institutions of higher edu-  
13 cation, in planning and carrying out appropriate re-  
14 search, in developing necessary technology, and in  
15 making necessary observations and measurements;

16 (2) provide, by way of grant, contract, scholar-  
17 ships, or other arrangements, to the maximum ex-  
18 tent practicable and consistent with other laws, for  
19 the widest practicable and appropriate participation  
20 of the scientific and engineering community in the  
21 program authorized by this subchapter; and

22 (3) make all results of the program authorized  
23 by this subchapter available to the appropriate regu-  
24 latory agencies and provide for the widest prac-  
25 ticable dissemination of such results.



1 **§ 364. International cooperation**

2       In carrying out the provisions of this subchapter, the  
 3 Administration, subject to the direction of the President  
 4 and after consultation with the Secretary of State, shall  
 5 make every effort to enlist the support and cooperation  
 6 of appropriate scientists and engineers of other countries  
 7 and international organizations.

8 **CHAPTER 5—ADJUNCT NATIONAL SPACE**  
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### 1 SUBCHAPTER I—APPROPRIATIONS AND FUNDS

#### 2 **§ 501. Prior authorization of appropriations required**

3 Notwithstanding the provisions of any other law, no  
4 appropriation may be made to the Administration unless  
5 previously authorized by legislation enacted by Congress.

#### 6 **§ 502. Working capital fund**

7 (a) ESTABLISHMENT.—There is hereby established in  
8 the United States Treasury an Administration working  
9 capital fund.

10 (b) AVAILABILITY OF AMOUNTS.—

11 (1) IN GENERAL.—Amounts in the fund are  
12 available for financing activities, services, equipment,  
13 information, and facilities as authorized by law to be  
14 provided—

15 (A) within the Administration;

1 (B) to other agencies or instrumentalities  
2 of the United States;

3 (C) to any State, Territory, or possession  
4 or political subdivision thereof;

5 (D) to other public or private agencies; or

6 (E) to any person, firm, association, cor-  
7 poration, or educational institution on a reim-  
8 bursable basis.

9 (2) CAPITAL REPAIRS.—The fund shall also be  
10 available for the purpose of funding capital repairs,  
11 renovations, rehabilitation, sustainment, demolition,  
12 or replacement of Administration real property, on a  
13 reimbursable basis within the Administration.

14 (3) NO FISCAL YEAR LIMITATION.—Amounts in  
15 the fund are available without regard to fiscal year  
16 limitation.

17 (c) CONTENTS.—The capital of the fund consists  
18 of—

19 (1) amounts appropriated to the fund;

20 (2) the reasonable value of stocks of supplies,  
21 equipment, and other assets and inventories on  
22 order that the Administrator transfers to the fund,  
23 less the related liabilities and unpaid obligations;  
24 and

1           (3) payments received for loss or damage to  
2       property of the fund.

3       (d) REIMBURSEMENT.—The fund shall be reim-  
4       bursed, in advance, for supplies and services at rates that  
5       will approximate the expenses of operation, such as the  
6       accrual of annual leave, depreciation of plant, property,  
7       and equipment, and overhead.

8       SUBCHAPTER II—CONTRACT AND LEASE  
9                                   AUTHORITY

10   **§ 511. Guaranteed customer base**

11       No amount appropriated to the Administration may  
12       be used to fund grants, contracts, or other agreements  
13       with an expected duration of more than one year, when  
14       a primary effect of the grant, contract, or agreement is  
15       to provide a guaranteed customer base for or establish an  
16       anchor tenancy in new commercial space hardware or serv-  
17       ices unless an appropriations Act specifies the new com-  
18       mercial space hardware or services to be developed or  
19       used, or the grant, contract, or agreement is otherwise  
20       identified in such Act.

21   **§ 512. Quality assurance personnel**

22       (a) EXCLUSION OF ADMINISTRATION PERSONNEL.—  
23       A person providing articles to the Administration under  
24       a contract entered into after December 9, 1991, may not  
25       exclude Administration quality assurance personnel from

1 work sites except as provided in a contract provision that  
2 has been submitted to Congress as provided in subsection  
3 (b).

4 (b) CONTRACT PROVISIONS.—The Administration  
5 shall not enter into any contract which permits the exclu-  
6 sion of Administration quality assurance personnel from  
7 work sites unless the Administrator has submitted a copy  
8 of the provision permitting such exclusion to Congress at  
9 least 60 days before entering into the contract.

10 **§ 513. Tracking and data relay satellite services**

11 (a) CONTRACTS.—The Administration is authorized,  
12 when so provided in an appropriation Act, to enter into  
13 and to maintain a contract for tracking and data relay  
14 satellite services. Such services shall be furnished to the  
15 Administration in accordance with applicable authoriza-  
16 tion and appropriations Acts. The Government shall incur  
17 no costs under such contract prior to the furnishing of  
18 such services except that the contract may provide for the  
19 payment for contingent liability of the Government which  
20 may accrue in the event the Government should decide for  
21 its convenience to terminate the contract before the end  
22 of the period of the contract. Facilities which may be re-  
23 quired in the performance of the contract may be con-  
24 structed on Government-owned lands if there is included  
25 in the contract a provision under which the Government

1 may acquire title to the facilities, under terms and condi-  
2 tions agreed upon in the contract, upon termination of the  
3 contract.

4 (b) REPORTS TO CONGRESS.—The Administrator  
5 shall in January of each year report to the Committee on  
6 Science and the Committee on Appropriations of the  
7 House of Representatives and the Committee on Com-  
8 merce, Science, and Transportation and the Committee on  
9 Appropriations of the Senate the projected aggregate con-  
10 tingent liability of the Government under termination pro-  
11 visions of any contract authorized in this section through  
12 the next fiscal year. The authority of the Administration  
13 to enter into and to maintain the contract authorized here-  
14 under shall remain in effect unless repealed by legislation  
15 enacted by Congress.

16 **§514. Award of contracts to small businesses and**  
17 **disadvantaged individuals**

18 The Administrator shall annually establish a goal of  
19 at least 8 percent of the total value of prime and sub-  
20 contracts awarded in support of authorized programs, in-  
21 cluding the space station by the time operational status  
22 is obtained, which funds will be made available to small  
23 business concerns or other organizations owned or con-  
24 trolled by socially and economically disadvantaged individ-  
25 uals (within the meaning of paragraphs (5) and (6) of sec-

tion 8(a) of the Small Business Act (15 U.S.C. 637(a))), including Historically Black Colleges and Universities and minority educational institutions (as defined by the Secretary of Education pursuant to the General Education Provisions Act (20 U.S.C. 1221 et seq.)).

#### **§ 515. Foreign contract limitation**

The Administration shall not enter into any agreement or contract with a foreign government that grants the foreign government the right to recover profit in the event that the agreement or contract is terminated.

### **SUBCHAPTER III—COST EFFECTIVENESS**

#### **§ 531. Requirement for independent cost analysis**

(a) DEFINITION OF PHASE B.—In this section, the term “Phase B” means the latter stages of project formulation, during which the final definition of a project is carried out and before project implementation (which includes the Design, Development, and Operations Phases) begins.

(b) REQUIREMENT.—Before any funds may be obligated for Phase B of a project that is projected to cost more than \$150,000,000 in total project costs, the Chief Financial Officer for the Administration shall conduct an independent life-cycle cost analysis of the project and shall report the results to Congress. In developing cost accounting and reporting standards for carrying out this section, the Chief Financial Officer shall, to the extent practicable

1 and consistent with other laws, solicit the advice of experts  
2 outside of the Administration.

3 **§ 532. Cost effectiveness calculations**

4 (a) DEFINITION OF COMMERCIAL PROVIDER.—In  
5 this section, the term “commercial provider” has the  
6 meaning given the term in section 3 of the National Aero-  
7 nautics and Space Administration Authorization Act of  
8 2000 (Public Law 106–391, 114 Stat. 1579).

9 (b) IN GENERAL.—Except as otherwise required by  
10 law, in calculating the cost effectiveness of the cost of the  
11 Administration engaging in an activity as compared to a  
12 commercial provider, the Administrator shall compare the  
13 cost of the Administration engaging in the activity using  
14 full cost accounting principles with the price the commer-  
15 cial provider will charge for such activity.

16 **§ 533. Use of abandoned and underutilized buildings,**  
17 **grounds, and facilities**

18 (a) DEFINITION OF DEPRESSED COMMUNITIES.—In  
19 this section, the term “depressed communities” means  
20 rural and urban communities that are relatively depressed,  
21 in terms of age of housing, extent of poverty, growth of  
22 per capita income, extent of unemployment, job lag, or  
23 surplus labor.

24 (b) IN GENERAL.—In any case in which the Adminis-  
25 trator considers the purchase, lease, or expansion of a fa-



1 cility to meet requirements of the Administration, the Ad-  
 2 ministrator shall consider whether those requirements  
 3 could be met by the use of one of the following:

4 (1) Abandoned or underutilized buildings,  
 5 grounds, and facilities in depressed communities  
 6 that can be converted to Administration usage at a  
 7 reasonable cost, as determined by the Administrator.

8 (2) Any military installation that is closed or  
 9 being closed, or any facility at such an installation.

10 (3) Any other facility or part of a facility that  
 11 the Administrator determines to be—

12 (A) owned or leased by the United States  
 13 for the use of another agency of the Federal  
 14 Government; and

15 (B) considered by the head of the agency  
 16 involved to be—

17 (i) excess to the needs of that agency;

18 or

19 (ii) underutilized by that agency.

## 20 SUBCHAPTER IV—AWARDS

### 21 § 541. Congressional Space Medal of Honor

22 (a) AUTHORITY TO AWARD.—The President may  
 23 award, and present in the name of Congress, a medal of  
 24 appropriate design, which shall be known as the Congres-  
 25 sional Space Medal of Honor, to any astronaut who in the

1 performance of the astronaut's duties has distinguished  
2 himself or herself by exceptionally meritorious efforts and  
3 contributions to the welfare of the Nation and of human-  
4 kind.

5 (b) APPROPRIATIONS.—There is authorized to be ap-  
6 propriated from time to time such sums of money as may  
7 be necessary to carry out the purposes of this section.

8 SUBCHAPTER V—USE OF SPACE SHUTTLE OR  
9 ALTERNATIVES

10 **§ 551. Recovery of fair value of placing Department**  
11 **of Defense payloads in orbit with space**  
12 **shuttle**

13 Notwithstanding any other provision of law, or any  
14 interagency agreement, the Administrator shall charge  
15 such prices as are necessary to recover the fair value of  
16 placing Department of Defense payloads into orbit by  
17 means of the space shuttle.

18 **§ 552. Payloads launched on Titan II launch vehicles**

19 The Secretary of Defense and the Administrator will  
20 jointly determine which payloads will be launched on Titan  
21 II launch vehicles and certify by notice to Congress that  
22 such launches are cost effective as compared to launches  
23 by the space shuttle and do not diminish the efficient and  
24 effective utilization of the space shuttle capability. This  
25 section may be waived only upon certification by the Sec-

1 retary of Defense that certain classified payloads must be  
2 launched on the Titan II launch vehicle as opposed to the  
3 space shuttle, for national security reasons.

4 **§ 553. Space shuttle use policy**

5 (a) USE POLICY.—

6 (1) IN GENERAL.—

7 (A) POLICY.—It shall be the policy of the  
8 United States to use the space shuttle—

9 (i) for purposes that require a human  
10 presence;

11 (ii) for purposes that require the  
12 unique capabilities of the space shuttle; or

13 (iii) when other compelling cir-  
14 cumstances exist.

15 (B) DEFINITION OF COMPELLING CIR-  
16 CUMSTANCES.—In this paragraph, the term  
17 “compelling circumstances” includes, but is not  
18 limited to, occasions when the Administrator  
19 determines, in consultation with the Secretary  
20 of Defense and the Secretary of State, that im-  
21 portant national security or foreign policy inter-  
22 ests would be served by a shuttle launch.

23 (2) USING AVAILABLE CARGO SPACE FOR SEC-  
24 ONDARY PAYLOADS.—The policy stated in paragraph  
25 (1) shall not preclude the use of available cargo

1 space, on a space shuttle mission otherwise con-  
2 sistent with the policy described in paragraph (1),  
3 for the purpose of carrying secondary payloads (as  
4 defined by the Administrator) that do not require a  
5 human presence if such payloads are consistent with  
6 the requirements of research, development, dem-  
7 onstration, scientific, commercial, and educational  
8 programs authorized by the Administrator.

9 (b) ANNUAL REPORT.—At least annually, the Admin-  
10 istrator shall submit to Congress a report certifying that  
11 the payloads scheduled to be launched on the space shuttle  
12 for the next 4 years are consistent with the policy set forth  
13 in subsection (a)(1). For each payload scheduled to be  
14 launched from the space shuttle that does not require a  
15 human presence, the Administrator shall, in the certified  
16 report to Congress, state the specific circumstances that  
17 justified the use of the space shuttle. If, during the period  
18 between scheduled reports to Congress, any additions are  
19 made to the list of certified payloads intended to be  
20 launched from the shuttle, the Administrator shall inform  
21 Congress of the additions and the reasons therefor within  
22 45 days of the change.

23 (c) ADMINISTRATION PAYLOADS.—The report de-  
24 scribed in subsection (b) shall also include those Adminis-

1 tration payloads designed solely to fly on the space shuttle  
2 which have begun the phase C/D of its development cycle.

3 **§ 554. Commercial payloads on space shuttle**

4 (a) DEFINITIONS.—In this section:

5 (1) LAUNCH VEHICLE.—The term “launch vehi-  
6 cle” means any vehicle constructed for the purpose  
7 of operating in, or placing a payload in, outer space.

8 (2) PAYLOAD.—The term “payload” means an  
9 object which a person undertakes to place in outer  
10 space by means of a launch vehicle, and includes  
11 subcomponents of the launch vehicle specifically de-  
12 signed or adapted for that object.

13 (b) IN GENERAL.—Commercial payloads may not be  
14 accepted for launch as primary payloads on the space  
15 shuttle unless the Administrator determines that—

16 (1) the payload requires the unique capabilities  
17 of the space shuttle; or

18 (2) launching of the payload on the space shut-  
19 tle is important for either national security or for-  
20 eign policy purposes.

21 **SUBCHAPTER VI—SHUTTLE PRICING POLICY**  
22 **FOR COMMERCIAL AND FOREIGN USERS**

23 **§ 561. Congressional findings and declarations**

24 Congress finds and declares that—

1           (1) the Space Transportation System is a vital  
2       element of the United States space program, con-  
3       tributing to the United States leadership in space re-  
4       search, technology, and development;

5           (2) the Space Transportation System is the pri-  
6       mary space launch system for both United States  
7       national security and civil government missions;

8           (3) the Space Transportation System contrib-  
9       utes to the expansion of United States private sector  
10      investment and involvement in space and therefore  
11      should serve commercial users;

12          (4) the availability of the Space Transportation  
13      System to foreign users for peaceful purposes is an  
14      important means of promoting international coopera-  
15      tive activities in the national interest and in main-  
16      taining access to space for activities which enhance  
17      the security and welfare of humankind;

18          (5) the United States is committed to maintain-  
19      ing world leadership in space transportation;

20          (6) making the Space Transportation System  
21      fully operational and cost effective in providing rou-  
22      tine access to space will maximize the national eco-  
23      nomic benefits of the system; and

24          (7) national goals and the objectives for the  
25      Space Transportation System can be furthered by a

1       stable and fair pricing policy for the Space Trans-  
2       portation System.

3   **§ 562. Purpose, policy, and goals**

4       The purpose of this subchapter is to set, for commer-  
5       cial and foreign users, the reimbursement pricing policy  
6       for the Space Transportation System that is consistent  
7       with the findings included in section 561 of this title, en-  
8       courages the full and effective use of space, and is de-  
9       signed to achieve the following goals:

10           (1) The preservation of the role of the United  
11       States as a leader in space research, technology, and  
12       development.

13           (2) The efficient and cost effective use of the  
14       Space Transportation System.

15           (3) The achievement of greatly increased com-  
16       mercial space activity.

17           (4) The enhancement of the international com-  
18       petitive position of the United States.

19   **§ 563. Definition of additive cost**

20       In this subchapter, the term “additive cost” means  
21       the average direct and indirect costs to the Administration  
22       of providing additional flights of the Space Transportation  
23       System beyond the costs associated with those flights nec-  
24       essary to meet the space transportation needs of the  
25       United States Government.

1 **§ 564. Duties of Administrator**

2 (a) ESTABLISHMENT AND IMPLEMENTATION OF RE-  
3 IMBURSEMENT RECOVERY SYSTEM.—The Administrator  
4 shall establish and implement a pricing system to recover  
5 reimbursement in accordance with the pricing policy under  
6 section 562 of this title from each commercial or foreign  
7 user of the Space Transportation System, which, except  
8 as provided in subsections (c), (d), and (e), shall include  
9 a base price of not less than \$74,000,000 for each flight  
10 of the Space Transportation System in 1982 dollars.

11 (b) REPORTS TO CONGRESS.—Each year the Admin-  
12 istrator shall submit to the President of the Senate, the  
13 Speaker of the House of Representatives, the Committee  
14 on Commerce, Science, and Transportation of the Senate,  
15 and the Committee on Science of the House of Represent-  
16 atives a report, transmitted contemporaneously with the  
17 annual budget request of the President, which shall inform  
18 Congress how the policy goals contained in section 562  
19 of this title are being furthered by the shuttle price for  
20 foreign and commercial users.

21 (c) REDUCTION OF BASE PRICE.—

22 (1) AUTHORITY TO REDUCE.—If at any time  
23 the Administrator finds that the policy goals con-  
24 tained in section 562 of this title are not being  
25 achieved, the Administrator shall have authority to  
26 reduce the base price established in subsection (a)



1 after 45 days following receipt by the President of  
2 the Senate, the Speaker of the House, the Com-  
3 mittee on Commerce, Science, and Transportation of  
4 the Senate, and the Committee on Science of the  
5 House of Representatives of a notice by the Admin-  
6 istrator containing a description of the proposed re-  
7 duction together with a full and complete statement  
8 of the facts and circumstances which necessitate  
9 such proposed reduction.

10 (2) MINIMUM PRICE.—In no case shall the min-  
11 imum price established under paragraph (1) be less  
12 than additive cost.

13 (d) LOW OR NO-COST FLIGHTS.—The Administrator  
14 may set a price lower than the price determined under  
15 subsection (a) or (c), or provide no-cost flights, for any  
16 commercial or foreign user of the Space Transportation  
17 System that is involved in research, development, or dem-  
18 onstration programs with the Administration.

19 (e) CUSTOMER INCENTIVES.—Notwithstanding the  
20 provisions of subsection (a), the Administrator shall have  
21 the authority to offer reasonable customer incentives con-  
22 sistent with the policy goals in section 562 of this title.

## 1 SUBCHAPTER VII—EDUCATION AND RESEARCH

2 **§ 571. Science, Space, and Technology Education**3 **Trust Fund**

4       There is appropriated, by transfer from funds appro-  
5 priated in the Department of Housing and Urban Devel-  
6 opment—Independent Agencies Appropriations Act, 1989  
7 (Public Law 100–404, 102 Stat. 1014), for “Construction  
8 of facilities”, the sum of \$15,000,000 to the “Science,  
9 Space, and Technology Education Trust Fund”, which is  
10 hereby established in the Treasury of the United States.  
11 The Secretary of the Treasury shall invest these funds in  
12 the United States Treasury special issue securities, and  
13 interest shall be credited to the Trust Fund on a quarterly  
14 basis. Such interest shall be available for the purpose of  
15 making grants for programs directed at improving science,  
16 space, and technology education in the United States. The  
17 Administrator, after consultation with the Director of the  
18 National Science Foundation, shall review applications  
19 made for such grants and determine the distribution of  
20 available funds on a competitive basis. Grants shall be  
21 made available to any awardee only to the extent that the  
22 awardee provides matching funds from non-Federal  
23 sources to carry out the program for which grants from  
24 this Trust Fund are made. Of the funds made available  
25 by this Trust Fund, \$250,000 shall be disbursed each cal-

1 endar quarter to the Challenger Center for Space Science  
2 Education. The Administrator shall submit to Congress  
3 an annual report on the grants made pursuant to this sec-  
4 tion.

5 **§ 572. National Aeronautics and Space Administra-**  
6 **tion Endeavor Teacher Fellowship Trust**  
7 **Fund**

8 (a) ESTABLISHMENT.—There is established in the  
9 Treasury of the United States, in tribute to the dedicated  
10 crew of the Space Shuttle Challenger, a trust fund to be  
11 known as the National Aeronautics and Space Administra-  
12 tion Endeavor Teacher Fellowship Trust Fund (hereafter  
13 in this section referred to as the “Trust Fund”). The  
14 Trust Fund shall consist of amounts which may from time  
15 to time, at the discretion of the Administrator, be trans-  
16 ferred from the National Aeronautics and Space Adminis-  
17 tration Gifts and Donations Trust Fund.

18 (b) INVESTMENT OF TRUST FUND.—The Adminis-  
19 trator shall direct the Secretary of the Treasury to invest  
20 and reinvest funds in the Trust Fund in public debt secu-  
21 rities with maturities suitable for the needs of the Trust  
22 Fund, and bearing interest at rates determined by the  
23 Secretary of the Treasury, taking into consideration the  
24 current average market yield on outstanding marketable

1 obligations of the United States of comparable maturities.

2 Interest earned shall be credited to the Trust Fund.

3 (c) PURPOSE.—Income accruing from the Trust  
4 Fund principal shall be used to create the National Aero-  
5 nautics and Space Administration Endeavor Teacher Fel-  
6 lowship Program, to the extent provided in advance in ap-  
7 propriation Acts. The Administrator is authorized to use  
8 such funds to award fellowships to selected United States  
9 nationals who are undergraduate students pursuing a  
10 course of study leading to certified teaching degrees in ele-  
11 mentary education or in secondary education in mathe-  
12 matics, science, or technology disciplines. Awards shall be  
13 made pursuant to standards established for the fellowship  
14 program by the Administrator.

15 **§ 573. Experimental Program to Stimulate Competi-**  
16 **tive Research—merit grant competition**  
17 **requirements**

18 (a) DEFINITION OF ELIGIBLE STATE.—In this sec-  
19 tion, the term “eligible State” means a State designated  
20 by the Administrator as eligible to compete in the National  
21 Science Foundation’s Experimental Program to Stimulate  
22 Competitive Research.

23 (b) COMPETITION.—Making use of the existing infra-  
24 structure established in eligible States by the National  
25 Science Foundation, the Administrator shall conduct a

1 merit grant competition among the eligible States in areas  
2 of research important to the mission of the Administra-  
3 tion. With respect to a grant application by an eligible  
4 State, the Administrator shall consider—

5 (1) the application's merit and relevance to the  
6 mission of the Administration;

7 (2) the potential for the grant to serve as a cat-  
8 alyst to enhance the ability of researchers in the  
9 State to become more competitive for regular Ad-  
10 ministration funding;

11 (3) the potential for the grant to improve the  
12 environment for science, mathematics, and engineer-  
13 ing education in the State; and

14 (4) the need to ensure the maximum distribu-  
15 tion of grants among eligible States, consistent with  
16 merit.

17 (c) SUPPLEMENTAL GRANTS.—The Administrator  
18 shall endeavor, where appropriate, to supplement grants  
19 made under subsection (b) with such grants for fellow-  
20 ships, traineeships, equipment, or instrumentation as are  
21 available.

22 **§574. National Aeronautics and Space Administra-**  
23 **tion Science and Technology Scholarship**  
24 **Program**

25 (a) DEFINITIONS.—In this section:

1           (1) COST OF ATTENDANCE.—The term “cost of  
2           attendance” has the meaning given the term in sec-  
3           tion 472 of the Higher Education Act of 1965 (20  
4           U.S.C. 1087*ll*).

5           (2) INSTITUTION OF HIGHER EDUCATION.—The  
6           term “institution of higher education” has the  
7           meaning given the term in section 101(a) of the  
8           Higher Education Act of 1965 (20 U.S.C. 1001(a)).

9           (3) PROGRAM.—The term “Program” means  
10          the National Aeronautics and Space Administration  
11          Science and Technology Scholarship Program estab-  
12          lished under this section.

13          (b) ESTABLISHMENT OF PROGRAM.—

14               (1) IN GENERAL.—The Administrator shall es-  
15               tablish a National Aeronautics and Space Adminis-  
16               tration Science and Technology Scholarship Pro-  
17               gram to award scholarships to individuals that is de-  
18               signed to recruit and prepare students for careers in  
19               the Administration.

20               (2) SELECTION BY COMPETITIVE PROCESS.—  
21               Individuals shall be selected to receive scholarships  
22               under this section through a competitive process pri-  
23               marily on the basis of academic merit, with consider-  
24               ation given to financial need and the goal of pro-  
25               moting the participation of individuals identified in

1 section 33 or 34 of the Science and Engineering  
2 Equal Opportunities Act (42 U.S.C. 1885a, 1885b).

3 (3) CONTRACTUAL AGREEMENT TO SERVE AS  
4 FULL-TIME EMPLOYEE.—To carry out the Program,  
5 the Administrator shall enter into contractual agree-  
6 ments with individuals selected under paragraph (2)  
7 under which the individuals agree to serve as full-  
8 time employees of the Administration, for the period  
9 described in subsection (g)(1), in positions needed by  
10 the Administration and for which the individuals are  
11 qualified, in exchange for receiving a scholarship.

12 (c) ELIGIBILITY.—In order to be eligible to partici-  
13 pate in the Program, an individual must—

14 (1) be enrolled or accepted for enrollment as a  
15 full-time student at an institution of higher edu-  
16 cation, as a junior or senior undergraduate or grad-  
17 uate student, in an academic field or discipline de-  
18 scribed in the list made available under subsection  
19 (e);

20 (2) be a United States citizen or permanent  
21 resident; and

22 (3) at the time of the initial scholarship award,  
23 not be an employee (as defined in section 2105 of  
24 title 5).

1       (d) APPLICATION.—An individual seeking a scholar-  
2 ship under this section shall submit an application to the  
3 Administrator at such time, in such manner, and con-  
4 taining such information, agreements, or assurances as  
5 the Administrator may require.

6       (e) LIST OF ACADEMIC PROGRAMS AND FIELDS OF  
7 STUDY.—The Administrator shall make publicly available  
8 a list of academic programs and fields of study for which  
9 scholarships under the Program may be utilized and shall  
10 update the list as necessary.

11       (f) PROVIDING SCHOLARSHIPS.—

12           (1) REQUIRED ACADEMIC DEGREE PROGRAM.—

13       The Administrator may provide a scholarship under  
14 the Program for an academic year if the individual  
15 applying for the scholarship has submitted to the  
16 Administrator, as part of the application required  
17 under subsection (d), a proposed academic program  
18 leading to a degree in a program or field of study  
19 on the list made available under subsection (e).

20           (2) FOUR-YEAR LIMITATION.—An individual  
21 may not receive a scholarship under this section for  
22 more than 4 academic years, unless the Adminis-  
23 trator grants a waiver.

24           (3) AMOUNT.—The dollar amount of a scholar-  
25 ship under this section for an academic year shall be



1 determined under regulations issued by the Adminis-  
2 trator, but shall in no case exceed the cost of attend-  
3 ance.

4 (4) USE.—A scholarship provided under this  
5 section may be expended for tuition, fees, and other  
6 authorized expenses as established by the Adminis-  
7 trator by regulation.

8 (5) DIRECT PAYMENTS TO INSTITUTIONS.—The  
9 Administrator may enter into a contractual agree-  
10 ment with an institution of higher education under  
11 which the amounts provided for a scholarship under  
12 this section for tuition, fees, and other authorized  
13 expenses are paid directly to the institution with re-  
14 spect to which the scholarship is provided.

15 (g) PERIOD OF SERVICE.—

16 (1) DURATION.—The period of service for  
17 which an individual shall be obligated to serve as an  
18 employee of the Administration is, except as pro-  
19 vided in subsection (i)(2), 24 months for each aca-  
20 demic year for which a scholarship under this sec-  
21 tion is provided.

22 (2) START DATE.—

23 (A) IN GENERAL.—Except as provided in  
24 subparagraph (B), obligated service under para-  
25 graph (1) shall begin not later than 60 days

1 after the individual obtains the educational de-  
2 gree for which the scholarship was provided.

3 (B) DEFERMENT.—The Administrator  
4 may defer the obligation of an individual to pro-  
5 vide a period of service under paragraph (1) if  
6 the Administrator determines that such a  
7 deferment is appropriate. The Administrator  
8 shall prescribe the terms and conditions under  
9 which a service obligation may be deferred  
10 through regulation.

11 (h) BREACH AND LIABILITY FOR REPAYMENT.—

12 (1) FAILURE TO COMPLETE ACADEMIC PRO-  
13 GRAM.—Scholarship recipients who fail to maintain  
14 a high level of academic standing, as defined by the  
15 Administrator by regulation, who are dismissed from  
16 their educational institutions for disciplinary rea-  
17 sons, or who voluntarily terminate academic training  
18 before graduation from the educational program for  
19 which the scholarship was awarded, shall be in  
20 breach of their contractual agreement and, in lieu of  
21 any service obligation arising under such agreement,  
22 shall be liable to the United States for repayment  
23 within one year after the date of default of all schol-  
24 arship funds paid to them and to the institution of  
25 higher education on their behalf under the agree-

ment, except as provided in subsection (i)(2). The repayment period may be extended by the Administrator when determined to be necessary, as established by regulation.

(2) FAILURE TO FULFILL SERVICE OBLIGATION.—

(A) BREACH OF CONTRACTUAL AGREEMENT.—A scholarship recipient who, for any reason, fails to begin or complete the recipient's service obligation after completion of academic training, or fails to comply with the terms and conditions of deferment established by the Administrator pursuant to subsection (g)(2)(B), shall be in breach of the recipient's contractual agreement.

(B) LIABILITY TO UNITED STATES.—A recipient in breach of the recipient's contractual agreement under subparagraph (A) shall be liable to the United States for an amount equal to 3 times the sum of—

(i) the total amount of scholarships received by the recipient under this section; plus

(ii) the interest on the amounts of the awards which would be payable if at the

1                   time the awards were received they were  
2                   loans bearing interest at the maximum  
3                   legal prevailing rate, as determined by the  
4                   Treasurer of the United States.

5           (i) CANCELLATION, WAIVER, AND SUSPENSION OF  
6 OBLIGATIONS.—

7           (1) DEATH.—Any obligation of an individual  
8           incurred under the Program (or a contractual agree-  
9           ment thereunder) for service or payment shall be  
10          canceled upon the death of the individual.

11          (2) IMPOSSIBILITY OR EXTREME HARDSHIP.—  
12          The Administrator shall by regulation provide for  
13          the partial or total waiver or suspension of any obli-  
14          gation of service or payment incurred by an indi-  
15          vidual under the Program (or a contractual agree-  
16          ment thereunder) whenever compliance by the indi-  
17          vidual is impossible or would involve extreme hard-  
18          ship to the individual, or if enforcement of such obli-  
19          gation with respect to the individual would be con-  
20          trary to the best interests of the Government.

21          (j) APPROPRIATIONS.—

22          (1) AUTHORIZATION.—There is authorized to  
23          be appropriated to the Administration for the Pro-  
24          gram \$10,000,000 for each fiscal year.

1           (2) AVAILABILITY.—Amounts appropriated  
2       under this section shall remain available for 2 fiscal  
3       years.

4       (k) TEMPORARY INTERNSHIPS.—The Administrator  
5       may provide temporary internships to full-time students  
6       enrolled in an undergraduate or post-graduate program  
7       leading to an advanced degree in an aerospace-related or  
8       aviation safety-related field of endeavor.

9                       SUBCHAPTER VIII—SAFETY

10   **§ 581. Drug and alcohol testing**

11       (a) FINDINGS.—Congress finds that—

12           (1) alcohol abuse and illegal drug use pose sig-  
13       nificant dangers to the safety and welfare of the Na-  
14       tion;

15           (2) the success of the United States civil space  
16       program is contingent upon the safe and successful  
17       development and deployment of the many varied  
18       components of that program;

19           (3) the greatest efforts must be expended to  
20       eliminate the abuse of alcohol and use of illegal  
21       drugs, whether on duty or off duty, by those individ-  
22       uals who are involved in the positions affecting safe-  
23       ty, security, and national security;

24           (4) the use of alcohol and illegal drugs has been  
25       demonstrated to adversely affect the performance of

1 individuals, and has been proven to have been a crit-  
2 ical factor in accidents in the workplace;

3 (5) the testing of uniformed personnel of the  
4 Armed Forces has shown that the most effective de-  
5 terrent to abuse of alcohol and use of illegal drugs  
6 is increased testing, including random testing;

7 (6) adequate safeguards can be implemented to  
8 ensure that testing for abuse of alcohol or use of ille-  
9 gal drugs is performed in a manner that protects an  
10 individual's right of privacy, ensures that no indi-  
11 vidual is harassed by being treated differently from  
12 other individuals, and ensures that no individual's  
13 reputation or career development is unduly threat-  
14 ened or harmed; and

15 (7) rehabilitation is a critical component of any  
16 testing program for abuse of alcohol or use of illegal  
17 drugs, and should be made available to individuals,  
18 as appropriate.

19 (b) DEFINITION OF CONTROLLED SUBSTANCE.—In  
20 this section, the term “controlled substance” means any  
21 substance under section 102(6) of the Controlled Sub-  
22 stances Act (21 U.S.C. 802(6)) specified by the Adminis-  
23 trator.

24 (c) TESTING PROGRAM.—

1           (1) EMPLOYEES OF ADMINISTRATION.—The  
2 Administrator shall establish a program applicable  
3 to employees of the Administration whose duties in-  
4 clude responsibility for safety-sensitive, security, or  
5 national security functions. Such program shall pro-  
6 vide for preemployment, reasonable suspicion, ran-  
7 dom, and post-accident testing for use, in violation  
8 of applicable law or Federal regulation, of alcohol or  
9 a controlled substance. The Administrator may also  
10 prescribe regulations, as the Administrator considers  
11 appropriate in the interest of safety, security, and  
12 national security, for the conduct of periodic recur-  
13 ring testing of such employees for such use in viola-  
14 tion of applicable law or Federal regulation.

15           (2) EMPLOYEES OF CONTRACTORS.—The Ad-  
16 ministrator shall, in the interest of safety, security,  
17 and national security, prescribe regulations. Such  
18 regulations shall establish a program that requires  
19 Administration contractors to conduct preemploy-  
20 ment, reasonable suspicion, random, and post-acci-  
21 dent testing of contractor employees responsible for  
22 safety-sensitive, security, or national security func-  
23 tions (as determined by the Administrator) for use,  
24 in violation of applicable law or Federal regulation,  
25 of alcohol or a controlled substance. The Adminis-

1       trator may also prescribe regulations, as the Admin-  
2       istrator considers appropriate in the interest of safe-  
3       ty, security, and national security, for the conduct of  
4       periodic recurring testing of such employees for such  
5       use in violation of applicable law or Federal regula-  
6       tion.

7               (3) SUSPENSION, DISQUALIFICATION, OR DIS-  
8       MISSAL.—In prescribing regulations under the pro-  
9       grams required by this subsection, the Administrator  
10      shall require, as the Administrator considers appro-  
11      priate, the suspension, disqualification, or dismissal  
12      of any employee to which paragraph (1) or (2) ap-  
13      plies, in accordance with the provisions of this sec-  
14      tion, in any instance where a test conducted and  
15      confirmed under this section indicates that such em-  
16      ployee has used, in violation of applicable law or  
17      Federal regulation, alcohol or a controlled substance.

18      (d) PROHIBITION ON SERVICE.—

19              (1) PROHIBITION UNLESS PROGRAM OF REHA-  
20      BILITATION COMPLETED.—No individual who is de-  
21      termined by the Administrator under this section to  
22      have used, in violation of applicable law or Federal  
23      regulation, alcohol or a controlled substance after  
24      December 9, 1991, shall serve as an Administration  
25      employee with responsibility for safety-sensitive, se-



1 security, or national security functions (as determined  
2 by the Administrator), or as an Administration con-  
3 tractor employee with such responsibility, unless  
4 such individual has completed a program of rehabili-  
5 tation described in subsection (e).

6 (2) UNCONDITIONAL PROHIBITION.—Any such  
7 individual determined by the Administrator under  
8 this section to have used, in violation of applicable  
9 law or Federal regulation, alcohol or a controlled  
10 substance after December 9, 1991, shall not be per-  
11 mitted to perform the duties that the individual per-  
12 formed prior to the date of the determination, if the  
13 individual—

14 (A) engaged in such use while on duty;

15 (B) prior to such use had undertaken or  
16 completed a rehabilitation program described in  
17 subsection (e);

18 (C) following such determination refuses to  
19 undertake such a rehabilitation program; or

20 (D) following such determination fails to  
21 complete such a rehabilitation program.

22 (e) PROGRAM FOR REHABILITATION.—

23 (1) REGULATIONS AND AVAILABILITY OF PRO-  
24 GRAM FOR CONTRACTOR EMPLOYEES.—The Admin-  
25 istrator shall prescribe regulations setting forth re-

1        requirements for rehabilitation programs which at a  
2        minimum provide for the identification and oppor-  
3        tunity for treatment of employees referred to in sub-  
4        section (c) in need of assistance in resolving prob-  
5        lems with the use, in violation of applicable law or  
6        Federal regulation, of alcohol or a controlled sub-  
7        stance. Each contractor is encouraged to make such  
8        a program available to all of its employees in addi-  
9        tion to those employees referred to in subsection  
10       (c)(2). The Administrator shall determine the cir-  
11       cumstances under which such employees shall be re-  
12       quired to participate in such a program. Nothing in  
13       this subsection shall preclude any Administration  
14       contractor from establishing a program under this  
15       subsection in cooperation with any other such con-  
16       tractor.

17                (2) ESTABLISHMENT AND MAINTENANCE OF  
18       PROGRAM FOR ADMINISTRATION EMPLOYEES.—The  
19       Administrator shall establish and maintain a reha-  
20       bilitation program which at a minimum provides for  
21       the identification and opportunity for treatment of  
22       those employees of the Administration whose duties  
23       include responsibility for safety-sensitive, security, or  
24       national security functions who are in need of assist-

1       ance in resolving problems with the use of alcohol or  
2       controlled substances.

3       (f) PROCEDURES FOR TESTING.—In establishing the  
4       programs required under subsection (c), the Administrator  
5       shall develop requirements which shall—

6               (1) promote, to the maximum extent prac-  
7       ticable, individual privacy in the collection of speci-  
8       men samples;

9               (2) with respect to laboratories and testing pro-  
10      cedures for controlled substances, incorporate the  
11      Department of Health and Human Services sci-  
12      entific and technical guidelines dated April 11,  
13      1988, and any subsequent amendments thereto, in-  
14      cluding mandatory guidelines which—

15               (A) establish comprehensive standards for  
16      all aspects of laboratory controlled substances  
17      testing and laboratory procedures to be applied  
18      in carrying out this section, including standards  
19      which require the use of the best available tech-  
20      nology for ensuring the full reliability and accu-  
21      racy of controlled substances tests and strict  
22      procedures governing the chain of custody of  
23      specimen samples collected for controlled sub-  
24      stances testing;

1 (B) establish the minimum list of con-  
2 trolled substances for which individuals may be  
3 tested; and

4 (C) establish appropriate standards and  
5 procedures for periodic review of laboratories  
6 and criteria for certification and revocation of  
7 certification of laboratories to perform con-  
8 trolled substances testing in carrying out this  
9 section;

10 (3) require that all laboratories involved in the  
11 controlled substances testing of any individual under  
12 this section shall have the capability and facility, at  
13 such laboratory, of performing screening and con-  
14 firmation tests;

15 (4) provide that all tests which indicate the use,  
16 in violation of applicable law or Federal regulation,  
17 of alcohol or a controlled substance by any individual  
18 shall be confirmed by a scientifically recognized  
19 method of testing capable of providing quantitative  
20 data regarding alcohol or a controlled substance;

21 (5) provide that each specimen sample be sub-  
22 divided, secured, and labelled in the presence of the  
23 tested individual and that a portion thereof be re-  
24 tained in a secure manner to prevent the possibility  
25 of tampering, so that in the event the individual's

1 confirmation test results are positive the individual  
2 has an opportunity to have the retained portion as-  
3 sayed by a confirmation test done independently at  
4 a second certified laboratory if the individual re-  
5 quests the independent test within 3 days after  
6 being advised of the results of the initial confirma-  
7 tion test;

8 (6) ensure appropriate safeguards for testing to  
9 detect and quantify alcohol in breath and body fluid  
10 samples, including urine and blood, through the de-  
11 velopment of regulations as may be necessary and in  
12 consultation with the Department of Health and  
13 Human Services;

14 (7) provide for the confidentiality of test results  
15 and medical information of employees; and

16 (8) ensure that employees are selected for tests  
17 by nondiscriminatory and impartial methods, so that  
18 no employee is harassed by being treated differently  
19 from other employees in similar circumstances.

20 (g) EFFECT ON OTHER LAWS AND REGULATIONS.—

21 (1) CONSISTENCY WITH FEDERAL REGULA-  
22 TION.—No State or local government shall adopt or  
23 have in effect any law, rule, regulation, ordinance,  
24 standard, or order that is inconsistent with the regu-  
25 lations promulgated under this section.

1           (2) CONTINUANCE OF REGULATIONS ISSUED  
2       BEFORE DECEMBER 9, 1991.—Nothing in this section  
3       shall be construed to restrict the discretion of the  
4       Administrator to continue in force, amend, or fur-  
5       ther supplement any regulations issued before De-  
6       cember 9, 1991, that govern the use of alcohol and  
7       controlled substances by Administration employees  
8       with responsibility for safety-sensitive, security, and  
9       national security functions (as determined by the  
10      Administrator), or by Administration contractor em-  
11      ployees with such responsibility.

12 **§ 582. Aerospace Safety Advisory Panel**

13       (a) ESTABLISHMENT AND MEMBERS.—There is es-  
14      tablished an Aerospace Safety Advisory Panel consisting  
15      of a maximum of 9 members who shall be appointed by  
16      the Administrator for terms of 6 years each. Not more  
17      than 4 such members shall be chosen from among the offi-  
18      cers and employees of the Administration.

19       (b) CHAIRMAN.—One member shall be designated by  
20      the Panel as its Chairman.

21       (c) DUTIES.—The Panel shall—

22           (1) review safety studies and operations plans  
23           referred to it and make reports thereon;

24           (2) advise the Administrator with respect to the  
25           hazards of proposed or existing facilities and pro-

1 posed operations and with respect to the adequacy of  
2 proposed or existing safety standards; and

3 (3) perform such other duties as the Adminis-  
4 trator may request.

5 (d) COMPENSATION AND EXPENSES.—

6 (1) COMPENSATION.—

7 (A) FEDERAL OFFICERS AND EMPLOY-  
8 EES.—A member of the Panel who is an officer  
9 or employee of the Federal Government shall  
10 receive no compensation for the member's serv-  
11 ices as such.

12 (B) MEMBERS APPOINTED FROM OUTSIDE  
13 THE FEDERAL GOVERNMENT.—A member of  
14 the Panel appointed from outside the Federal  
15 Government shall receive compensation, at a  
16 rate not to exceed the per diem rate equivalent  
17 to the maximum rate payable under section  
18 5376 of title 5, for each day the member is en-  
19 gaged in the actual performance of duties vest-  
20 ed in the Panel.

21 (2) EXPENSES.—A member of the Panel shall  
22 be allowed necessary travel expenses (or in the alter-  
23 native, mileage for use of a privately owned vehicle  
24 and a per diem in lieu of subsistence not to exceed  
25 the rate and amount prescribed in sections 5702 and

1       5704 of title 5), and other necessary expenses in-  
 2       curred by the member in the performance of duties  
 3       vested in the Panel, without regard to the provisions  
 4       of subchapter I of chapter 57 of title 5, the Stand-  
 5       ardized Government Travel Regulations, or section  
 6       5731 of title 5.

7       SUBCHAPTER IX—COMPETITIVENESS AND  
 8       INTERNATIONAL COOPERATION

9   **§ 591. Competitiveness and international cooperation**

10       (a) LIMITATION.—

11               (1) SOLICITATION OF COMMENT.—As part of  
 12       the evaluation of the costs and benefits of entering  
 13       into an obligation to conduct a space mission in  
 14       which a foreign entity will participate as a supplier  
 15       of the spacecraft, spacecraft system, or launch sys-  
 16       tem, the Administrator shall solicit comment on the  
 17       potential impact of such participation through notice  
 18       published in Commerce Business Daily at least 45  
 19       days before entering into such an obligation.

20               (2) AGREEMENTS WITH PEOPLE’S REPUBLIC OF  
 21       CHINA.—The Administrator shall certify to Congress  
 22       at least 15 days in advance of any cooperative agree-  
 23       ment with the People’s Republic of China, or any  
 24       company owned by the People’s Republic of China or  
 25       incorporated under the laws of the People’s Republic



1 of China, involving spacecraft, spacecraft systems,  
2 launch systems, or scientific or technical informa-  
3 tion, that—

4 (A) the agreement is not detrimental to  
5 the United States space launch industry; and

6 (B) the agreement, including any indirect  
7 technical benefit that could be derived from the  
8 agreement, will not improve the missile or space  
9 launch capabilities of the People’s Republic of  
10 China.

11 (3) ANNUAL AUDIT.—The Inspector General of  
12 the Administration, in consultation with appropriate  
13 agencies, shall conduct an annual audit of the poli-  
14 cies and procedures of the Administration with re-  
15 spect to the export of technologies and the transfer  
16 of scientific and technical information, to assess the  
17 extent to which the Administration is carrying out  
18 its activities in compliance with Federal export con-  
19 trol laws and with paragraph (2).

20 (b) NATIONAL INTERESTS.—Before entering into an  
21 obligation described in subsection (a), the Administrator  
22 shall consider the national interests of the United States  
23 described in section 2(6) of the National Aeronautics and  
24 Space Administration Authorization Act of 2000 (Public  
25 Law 106–391, 114 Stat. 1578).

1     **CHAPTER 7—NATIONAL SPACE GRANT**  
 2     **COLLEGE AND FELLOWSHIP PROGRAM**

Sec.

- 701. Congressional statement of findings.
- 702. Congressional statement of purposes.
- 703. Definitions.
- 704. National space grant college and fellowship program.
- 705. Grants or contracts.
- 706. Specific national needs.
- 707. Space grant college and space grant regional consortium.
- 708. Space grant fellowship program.
- 709. Space grant review panel.
- 710. Availability of other Federal personnel and data.
- 711. Designation or award to be on competitive basis.

3     **§ 701. Congressional statement of findings**

4         Congress finds that—

5             (1) the vitality of the Nation and the quality of  
 6         life of the citizens of the Nation depend increasingly  
 7         on the understanding, assessment, development, and  
 8         utilization of space resources;

9             (2) research and development of space science,  
 10         space technology, and space commercialization will  
 11         contribute to the quality of life, national security,  
 12         and the enhancement of commerce;

13            (3) the understanding and development of the  
 14         space frontiers require a broad commitment and an  
 15         intense involvement on the part of the Federal Gov-  
 16         ernment in partnership with State and local govern-  
 17         ments, private industry, universities, organizations,  
 18         and individuals concerned with the exploration and  
 19         utilization of space;

1           (4) the Administration, through the national  
2       space grant college and fellowship program, offers  
3       the most suitable means for such commitment and  
4       involvement through the promotion of activities that  
5       will result in greater understanding, assessment, de-  
6       velopment, and utilization; and

7           (5) Federal support of the establishment, devel-  
8       opment, and operation of programs and projects by  
9       space grant colleges, space grant regional consortia,  
10      institutions of higher education, institutes, labora-  
11      tories, and other appropriate public and private enti-  
12      ties is the most cost-effective way to promote such  
13      activities.

14   **§ 702. Congressional statement of purposes**

15       The purposes of this chapter are to—

16           (1) increase the understanding, assessment, de-  
17      velopment, and utilization of space resources by pro-  
18      moting a strong educational base, responsive re-  
19      search and training activities, and broad and prompt  
20      dissemination of knowledge and techniques;

21           (2) utilize the abilities and talents of the uni-  
22      versities of the Nation to support and contribute to  
23      the exploration and development of the resources  
24      and opportunities afforded by the space environ-  
25      ment;

(3) encourage and support, within the university community of the Nation, the existence of interdisciplinary and multidisciplinary programs of space research that—

(A) engage in integrated activities of training, research, and public service;

(B) have cooperative programs with industry; and

(C) are coordinated with the overall program of the Administration;

(4) encourage and support the existence of consortia, made up of university and industry members, in order to advance the exploration and development of space resources in cases in which national objectives can be better fulfilled through such consortia than through the programs of single universities;

(5) encourage and support Federal funding for graduate fellowships in fields related to space; and

(6) support activities in colleges and universities generally for the purpose of creating and operating a network of institutional programs that will enhance achievements resulting from efforts under this chapter.

#### **§ 703. Definitions**

In this chapter:

1           (1) AERONAUTICAL AND SPACE ACTIVITIES.—

2           The term “aeronautical and space activities” has the  
3           meaning given the term in section 303 of this title.

4           (2) FIELD RELATED TO SPACE.—The term

5           “field related to space” means any academic dis-  
6           cipline or field of study (including the physical, nat-  
7           ural, and biological sciences, and engineering, space  
8           technology, education, economics, sociology, commu-  
9           nications, planning, law, international affairs, and  
10          public administration) which is concerned with or  
11          likely to improve the understanding, assessment, de-  
12          velopment, and utilization of space.

13          (3) PANEL.—The term “panel” means the  
14          space grant review panel established pursuant to  
15          section 709 of this title.

16          (4) PERSON.—The term “person” means any  
17          individual, any public or private corporation, part-  
18          nership, or other association or entity (including any  
19          space grant college, space grant regional consortium,  
20          institution of higher education, institute, or labora-  
21          tory), or any State, political subdivision of a State,  
22          or agency or officer of a State or political subdivi-  
23          sion of a State.

1           (5) SPACE ENVIRONMENT.—The term “space  
2       environment” means the environment beyond the  
3       sensible atmosphere of the Earth.

4           (6) SPACE GRANT COLLEGE.—The term “space  
5       grant college” means any public or private institu-  
6       tion of higher education which is designated as such  
7       by the Administrator pursuant to section 707 of this  
8       title.

9           (7) SPACE GRANT PROGRAM.—The term “space  
10      grant program” means any program that—

11                (A) is administered by any space grant col-  
12      lege, space grant regional consortium, institu-  
13      tion of higher education, institute, laboratory,  
14      or State or local agency; and

15                (B) includes 2 or more projects involving  
16      education and one or more of the following ac-  
17      tivities in the fields related to space:

18                       (i) Research.

19                       (ii) Training.

20                       (iii) Advisory services.

21           (8) SPACE GRANT REGIONAL CONSORTIUM.—  
22      The term “space grant regional consortium” means  
23      any association or other alliance that is designated  
24      as a space grant regional consortium by the Admin-  
25      istrator pursuant to section 707 of this title.

1           (9) SPACE RESOURCE.—The term “space re-  
2       source” means any tangible or intangible benefit  
3       which can be realized only from—

4                   (A) aeronautical and space activities; or

5                   (B) advancements in any field related to  
6       space.

7           (10) STATE.—The term “State” means any  
8       State of the United States, the District of Columbia,  
9       the Commonwealth of Puerto Rico, the Virgin Is-  
10      lands, Guam, American Samoa, the Commonwealth  
11      of the Northern Mariana Islands, or any other terri-  
12      tory or possession of the United States.

13 **§ 704. National space grant college and fellowship**  
14 **program**

15       (a) ESTABLISHMENT.—The Administrator shall es-  
16      tablish and maintain, within the Administration, a pro-  
17      gram to be known as the national space grant college and  
18      fellowship program. The national space grant college and  
19      fellowship program shall consist of the financial assistance  
20      and other activities provided for in this chapter. The Ad-  
21      ministrator shall establish long-range planning guidelines  
22      and priorities, and adequately evaluate the program.

23       (b) FUNCTIONS.—Within the Administration, the  
24      program shall—

1           (1) apply the long-range planning guidelines  
2           and the priorities established by the Administrator  
3           under subsection (a);

4           (2) advise the Administrator with respect to the  
5           expertise and capabilities which are available  
6           through the national space grant college and fellow-  
7           ship program, and make such expertise available to  
8           the Administration as directed by the Administrator;

9           (3) evaluate activities conducted under grants  
10          and contracts awarded pursuant to sections 705 and  
11          706 of this title to ensure that the purposes set  
12          forth in section 702 of this title are implemented;

13          (4) encourage other Federal departments, agen-  
14          cies, and instrumentalities to use and take advan-  
15          tage of the expertise and capabilities which are avail-  
16          able through the national space grant college and  
17          fellowship program, on a cooperative or other basis;

18          (5) encourage cooperation and coordination  
19          with other Federal programs concerned with the de-  
20          velopment of space resources and fields related to  
21          space;

22          (6) advise the Administrator on the designation  
23          of recipients supported by the national space grant  
24          college and fellowship program and, in appropriate



1 cases, on the termination or suspension of any such  
2 designation; and

3 (7) encourage the formation and growth of  
4 space grant and fellowship programs.

5 (c) GENERAL AUTHORITIES.—To carry out the provi-  
6 sions of this chapter, the Administrator may—

7 (1) accept conditional or unconditional gifts or  
8 donations of services, money, or property, real, per-  
9 sonal or mixed, tangible or intangible;

10 (2) accept and use funds from other Federal  
11 departments, agencies, and instrumentalities to pay  
12 for fellowships, grants, contracts, and other trans-  
13 actions; and

14 (3) issue such rules and regulations as may be  
15 necessary and appropriate.

16 **§ 705. Grants or contracts**

17 (a) AUTHORITY OF ADMINISTRATOR.—The Adminis-  
18 trator may make grants and enter into contracts or other  
19 transactions under this subsection to assist any space  
20 grant and fellowship program or project if the Adminis-  
21 trator finds that the program or project will carry out the  
22 purposes set forth in section 702 of this title. The total  
23 amount paid pursuant to a grant or contract may equal  
24 not more than 66 percent of the total cost of the space  
25 grant and fellowship program or project involved, except

1 in the case of grants or contracts paid for with funds ac-  
2 cepted by the Administrator pursuant to section 704(c)(2)  
3 of this title.

4 (b) SPECIAL GRANTS.—The Administrator may make  
5 special grants under this subsection to carry out the pur-  
6 poses set forth in section 702 of this title. The amount  
7 of a special grant may equal up to 100 percent of the total  
8 cost of the project involved. A special grant may be made  
9 under this subsection only if the Administrator finds  
10 that—

11 (1) no reasonable means is available through  
12 which the applicant can meet the matching require-  
13 ment for a grant under subsection (a);

14 (2) the probable benefit of the project out-  
15 weighs the public interest in the matching require-  
16 ment; and

17 (3) the same or equivalent benefit cannot be ob-  
18 tained through the award of a contract or grant  
19 under subsection (a) or section 706 of this title.

20 (c) APPLICATION.—Any person may apply to the Ad-  
21 ministrator for a grant or contract under this section. Ap-  
22 plication shall be made in such form and manner, and with  
23 such content and other submissions, as the Administrator  
24 shall by regulation prescribe.

25 (d) TERMS AND CONDITIONS.—

1           (1) IN GENERAL.—Any grant made, or contract  
2 entered into, under this section shall be subject to  
3 the limitations and provisions set forth in para-  
4 graphs (2) and (3) and to such other terms, condi-  
5 tions, and requirements as the Administrator con-  
6 siders necessary or appropriate.

7           (2) LIMITATIONS.—No payment under any  
8 grant or contract under this section may be applied  
9 to—

10                   (A) the purchase of any land;

11                   (B) the purchase, construction, preserva-  
12 tion, or repair of any building; or

13                   (C) the purchase or construction of any  
14 launch facility or launch vehicle.

15           (3) LEASES.—Notwithstanding paragraph (2),  
16 the items in subparagraphs (A), (B), and (C) of  
17 such paragraph may be leased upon written approval  
18 of the Administrator.

19           (4) RECORDS.—Any person that receives or uti-  
20 lizes any proceeds of any grant or contract under  
21 this section shall keep such records as the Adminis-  
22 trator shall by regulation prescribe as being nec-  
23 essary and appropriate to facilitate effective audit  
24 and evaluation, including records which fully disclose  
25 the amount and disposition by such recipient of such

1       proceeds, the total cost of the program or project in  
2       connection with which such proceeds were used, and  
3       the amount, if any, of such cost which was provided  
4       through other sources. Such records shall be main-  
5       tained for 3 years after the completion of such a  
6       program or project. The Administrator and the  
7       Comptroller General of the United States, or any of  
8       their duly authorized representatives, shall have ac-  
9       cess, for the purpose of audit and evaluation, to any  
10      books, documents, papers, and records of receipts  
11      which, in the opinion of the Administrator or the  
12      Comptroller General, may be related or pertinent to  
13      such grants and contracts.

14   **§ 706. Specific national needs**

15       (a) IDENTIFICATION OF SPECIFIC NEEDS AND  
16      GRANT-MAKING AND CONTRACTING AUTHORITY.—The  
17      Administrator shall identify specific national needs and  
18      problems relating to space. The Administrator may make  
19      grants or enter into contracts under this section with re-  
20      spect to such needs or problems. The amount of any such  
21      grant or contract may equal up to 100 percent of the total  
22      cost of the project involved.

23       (b) APPLICATIONS FOR GRANTS OR CONTRACTS.—  
24      Any person may apply to the Administrator for a grant  
25      or contract under this section. In addition, the Adminis-

1 trator may invite applications with respect to specific na-  
 2 tional needs or problems identified under subsection (a).  
 3 Application shall be made in such form and manner, and  
 4 with such content and other submissions, as the Adminis-  
 5 trator shall by regulation prescribe. Any grant made, or  
 6 contract entered into, under this section shall be subject  
 7 to the limitations and provisions set forth in paragraphs  
 8 (2) and (4) of section 705(d) of this title and to such other  
 9 terms, conditions, and requirements as the Administrator  
 10 considers necessary or appropriate.

11 **§ 707. Space grant college and space grant regional**  
 12 **consortium**

13 (a) DESIGNATION AND QUALIFICATIONS.—

14 (1) AUTHORITY TO DESIGNATE.—The Adminis-  
 15 trator may designate—

16 (A) any institution of higher education as  
 17 a space grant college; and

18 (B) any association or other alliance of 2  
 19 or more persons, other than individuals, as a  
 20 space grant regional consortium.

21 (2) SPACE GRANT COLLEGE REQUIREMENTS.—

22 No institution of higher education may be des-  
 23 ignated as a space grant college unless the Adminis-  
 24 trator finds that such institution—

1 (A) is maintaining a balanced program of  
2 research, education, training, and advisory serv-  
3 ices in fields related to space;

4 (B) will act in accordance with such guide-  
5 lines as are prescribed under subsection (b)(2);  
6 and

7 (C) meets such other qualifications as the  
8 Administrator considers necessary or appro-  
9 priate.

10 (3) SPACE GRANT REGIONAL CONSORTIUM RE-  
11 QUIREMENTS.—No association or other alliance of 2  
12 or more persons may be designated as a space grant  
13 regional consortium unless the Administrator finds  
14 that such association or alliance—

15 (A) is established for the purpose of shar-  
16 ing expertise, research, educational facilities or  
17 training facilities, and other capabilities in  
18 order to facilitate research, education, training,  
19 and advisory services in any field related to  
20 space;

21 (B) will encourage and follow a regional  
22 approach to solving problems or meeting needs  
23 relating to space, in cooperation with appro-  
24 priate space grant colleges, space grant pro-  
25 grams, and other persons in the region;

1 (C) will act in accordance with such guide-  
2 lines as are prescribed under subsection (b)(2);  
3 and

4 (D) meets such other qualifications as the  
5 Administrator considers necessary or appro-  
6 priate.

7 (b) QUALIFICATIONS AND GUIDELINES.—The Ad-  
8 ministrator shall by regulation prescribe—

9 (1) the qualifications required to be met under  
10 paragraphs (2)(C) and (3)(D) of subsection (a); and

11 (2) guidelines relating to the activities and re-  
12 sponsibilities of space grant colleges and space grant  
13 regional consortia.

14 (c) SUSPENSION OR TERMINATION OF DESIGNA-  
15 TION.—The Administrator may, for cause and after an op-  
16 portunity for hearing, suspend or terminate any designa-  
17 tion under subsection (a).

18 **§ 708. Space grant fellowship program**

19 (a) AWARD OF FELLOWSHIPS.—The Administrator  
20 shall support a space grant fellowship program to provide  
21 educational and training assistance to qualified individuals  
22 at the graduate level of education in fields related to  
23 space. Such fellowships shall be awarded pursuant to  
24 guidelines established by the Administrator. Space grant  
25 fellowships shall be awarded to individuals at space grant

1 colleges, space grant regional consortia, other colleges and  
2 institutions of higher education, professional associations,  
3 and institutes in such a manner as to ensure wide geo-  
4 graphic and institutional diversity in the pursuit of re-  
5 search under the fellowship program.

6 (b) LIMITATION ON AMOUNT PROVIDED.—The total  
7 amount which may be provided for grants under the space  
8 grant fellowship program during any fiscal year shall not  
9 exceed an amount equal to 50 percent of the total funds  
10 appropriated for such year pursuant to this chapter.

11 (c) AUTHORITY TO SPONSOR OTHER RESEARCH  
12 FELLOWSHIP PROGRAMS UNAFFECTED.—Nothing in this  
13 section shall be construed to prohibit the Administrator  
14 from sponsoring any research fellowship program, includ-  
15 ing any special emphasis program, which is established  
16 under an authority other than this chapter.

17 **§ 709. Space grant review panel**

18 (a) ESTABLISHMENT.—The Administrator shall es-  
19 tablish an independent committee known as the space  
20 grant review panel, which shall not be subject to the provi-  
21 sions of the Federal Advisory Committee Act (5 U.S.C.  
22 App.).

23 (b) DUTIES.—The panel shall take such steps as may  
24 be necessary to review, and shall advise the Administrator  
25 with respect to—



1           (1) applications or proposals for, and perform-  
2           ance under, grants and contracts awarded pursuant  
3           to sections 705 and 706 of this title;

4           (2) the space grant fellowship program;

5           (3) the designation and operation of space  
6           grant colleges and space grant regional consortia,  
7           and the operation of space grant and fellowship pro-  
8           grams;

9           (4) the formulation and application of the plan-  
10          ning guidelines and priorities pursuant to sub-  
11          sections (a) and (b)(1) of section 704 of this title;  
12          and

13          (5) such other matters as the Administrator re-  
14          fers to the panel for review and advice.

15          (c) PERSONNEL AND ADMINISTRATIVE SERVICES.—  
16          The Administrator shall make available to the panel any  
17          information, personnel, and administrative services and  
18          assistance which is reasonable to carry out the duties of  
19          the panel.

20          (d) MEMBERS.—

21                 (1) APPOINTMENT.—The Administrator shall  
22                 appoint the voting members of the panel. A majority  
23                 of the voting members shall be individuals who, by  
24                 reason of knowledge, experience, or training, are es-  
25                 pecially qualified in one or more of the disciplines

1 and fields related to space. The other voting mem-  
2 bers shall be individuals who, by reason of knowl-  
3 edge, experience, or training, are especially qualified  
4 in, or representative of, education, extension serv-  
5 ices, State government, industry, economics, plan-  
6 ning, or any other activity related to efforts to en-  
7 hance the understanding, assessment, development,  
8 or utilization of space resources. The Administrator  
9 shall consider the potential conflict of interest of any  
10 individual in making appointments to the panel.

11 (2) CHAIRMAN AND VICE CHAIRMAN.—The Ad-  
12 ministrator shall select one voting member to serve  
13 as the Chairman and another voting member to  
14 serve as the Vice Chairman. The Vice Chairman  
15 shall act as Chairman in the absence or incapacity  
16 of the Chairman.

17 (3) REIMBURSEMENT FOR EXPENSES.—Voting  
18 members of the panel who are not Federal employ-  
19 ees shall be reimbursed for actual and reasonable ex-  
20 penses incurred in the performance of such duties.

21 (4) MEETINGS.—The panel shall meet on a bi-  
22 annual basis and, at any other time, at the call of  
23 the Chairman or upon the request of a majority of  
24 the voting members or of the Administrator.

1           (5) POWERS.—The panel may exercise such  
2           powers as are reasonably necessary in order to carry  
3           out the duties enumerated in subsection (b).

4   **§ 710. Availability of other Federal personnel and**  
5           **data**

6           Each department, agency, or other instrumentality of  
7           the Federal Government that is engaged in or concerned  
8           with, or that has authority over, matters relating to  
9           space—

10           (1) may, upon a written request from the Ad-  
11           ministrator, make available, on a reimbursable basis  
12           or otherwise, any personnel (with their consent and  
13           without prejudice to their position and rating), serv-  
14           ice, or facility which the Administrator considers  
15           necessary to carry out any provision of this chapter;

16           (2) may, upon a written request from the Ad-  
17           ministrator, furnish any available data or other in-  
18           formation which the Administrator considers nec-  
19           essary to carry out any provision of this chapter;  
20           and

21           (3) may cooperate with the Administration.

22   **§ 711. Designation or award to be on competitive**  
23           **basis**

24           The Administrator shall not under this chapter des-  
25           ignate any space grant college or space grant regional con-

1 sortium or award any fellowship, grant, or contract unless  
 2 such designation or award is made in accordance with the  
 3 competitive, merit-based review process employed by the  
 4 Administration on October 30, 1987.

## 5 **CHAPTER 9—BIOMEDICAL RESEARCH IN** 6 **SPACE**

Sec.

901. Findings.

902. Biomedical research joint working group.

903. Biomedical research grants.

904. Biomedical research fellowships.

905. Establishment of electronic data archive.

906. Establishment of emergency medical service telemedicine capability.

### 7 **§ 901. Findings**

8 Congress finds that—

9 (1) the space program can make significant  
 10 contributions to selected areas of health-related re-  
 11 search and should be an integral part of the Na-  
 12 tion's health research and development program;

13 (2) the continuing development of trained sci-  
 14 entists and engineers is essential to carrying out an  
 15 effective and sustained program of biomedical re-  
 16 search in space and on the ground;

17 (3) the establishment and maintenance of an  
 18 electronically accessible archive of data on space-re-  
 19 lated biomedical research is essential to advancement  
 20 of the field;

21 (4) cooperation with the republics of the former  
 22 Soviet Union, including use of former Soviet orbital

1 facilities, offers the potential for greatly enhanced  
2 biomedical research activities and progress; and  
3 (5) the establishment and maintenance of an  
4 international telemedicine consultation satellite capa-  
5 bility to support emergency medical service provision  
6 can provide an important aid to disaster relief ef-  
7 forts.

8 **§ 902. Biomedical research joint working group**

9 (a) ESTABLISHMENT.—The Administrator and the  
10 Director of the National Institutes of Health shall jointly  
11 establish a working group to coordinate biomedical re-  
12 search activities in areas where a microgravity environ-  
13 ment may contribute to significant progress in the under-  
14 standing and treatment of diseases and other medical con-  
15 ditions. The joint working group shall formulate joint and  
16 complementary programs in such areas of research.

17 (b) MEMBERSHIP.—The joint working group shall in-  
18 clude equal representation from the Administration and  
19 the National Institutes of Health, and shall include rep-  
20 resentation from National Institutes of Health councils,  
21 as selected by the Director of the National Institutes of  
22 Health, and from the National Aeronautics and Space Ad-  
23 ministration Advisory Council.

24 (c) ANNUAL BIOMEDICAL RESEARCH SYMPOSIA.—  
25 The joint working group shall organize annual symposia

1 on biomedical research described in subsection (a) under  
2 the joint sponsorship of the Administration and the Na-  
3 tional Institutes of Health.

4 (d) ANNUAL REPORTING REQUIREMENT.—The joint  
5 working group shall report annually to Congress on its  
6 progress in carrying out this section.

7 **§ 903. Biomedical research grants**

8 (a) ESTABLISHMENT OF PROGRAM.—The Adminis-  
9 trator and the Director of the National Institutes of  
10 Health shall establish a joint program of biomedical re-  
11 search grants in areas described in section 902(a) of this  
12 title, where such research requires access to a microgravity  
13 environment. Such program shall be consistent with ac-  
14 tions taken by the joint working group under section 902  
15 of this title.

16 (b) RESEARCH OPPORTUNITY ANNOUNCEMENTS.—  
17 The grants program established under subsection (a) shall  
18 annually issue joint research opportunity announcements  
19 under the sponsorship of the National Institutes of Health  
20 and the Administration. Responses to the announcements  
21 shall be evaluated by a peer review committee whose mem-  
22 bers shall be selected by the Director of the National Insti-  
23 tutes of Health and the Administrator, and shall include  
24 individuals not employed by the Administration or the Na-  
25 tional Institutes of Health.

1 **§ 904. Biomedical research fellowships**

2       The Administrator and the Director of the National  
3 Institutes of Health shall create a joint program of grad-  
4 uate research fellowships in biomedical research described  
5 in section 902(a) of this title. Fellowships under such pro-  
6 gram may provide for participation in approved research  
7 conferences and symposia.

8 **§ 905. Establishment of electronic data archive**

9       The Administrator shall create and maintain a na-  
10 tional electronic data archive for biomedical research data  
11 obtained from space-based experiments.

12 **§ 906. Establishment of emergency medical service**  
13 **telemedicine capability**

14       The Administrator, the Director of the Federal  
15 Emergency Management Agency, the Director of the Of-  
16 fice of Foreign Disaster Assistance, and the Surgeon Gen-  
17 eral of the United States shall jointly create and maintain  
18 an international telemedicine satellite consultation capa-  
19 bility to support emergency medical services in disaster-  
20 stricken areas.

21 **CHAPTER 11—LAND REMOTE SENSING**  
22 **POLICY**

SUBCHAPTER I—FINDINGS AND DEFINITIONS

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- 1161. Prohibition.
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## 1 SUBCHAPTER I—FINDINGS AND DEFINITIONS

### 2 § 1101. Findings

3 Congress finds and declares the following:

- 4 (1) The continuous collection and utilization of
- 5 land remote sensing data from space are of major
- 6 benefit in studying and understanding human im-
- 7 pacts on the global environment, in managing the
- 8 Earth's natural resources, in carrying out national
- 9 security functions, and in planning and conducting



1 many other activities of scientific, economic, and so-  
2 cial importance.

3 (2) The Federal Government's Landsat system  
4 established the United States as the world leader in  
5 land remote sensing technology.

6 (3) The national interest of the United States  
7 lies in maintaining international leadership in sat-  
8 ellite land remote sensing and in broadly promoting  
9 the beneficial use of remote sensing data.

10 (4) The cost of Landsat data has impeded the  
11 use of such data for scientific purposes, such as for  
12 global environmental change research, as well as for  
13 other public sector applications.

14 (5) Given the importance of the Landsat pro-  
15 gram to the United States, urgent actions, including  
16 expedited procurement procedures, are required to  
17 ensure data continuity.

18 (6) Full commercialization of the Landsat pro-  
19 gram cannot be achieved within the foreseeable fu-  
20 ture, and thus should not serve as the near-term  
21 goal of national policy on land remote sensing; how-  
22 ever, commercialization of land remote sensing  
23 should remain a long-term goal of United States pol-  
24 icy.

1           (7) Despite the success and importance of the  
2       Landsat system, funding and organizational uncer-  
3       tainties over the past several years have placed its  
4       future in doubt and have jeopardized United States  
5       leadership in land remote sensing.

6           (8) Recognizing the importance of the Landsat  
7       program in helping to meet national and commercial  
8       objectives, the President approved, on February 11,  
9       1992, a National Space Policy Directive which was  
10      developed by the National Space Council and com-  
11      mits the United States to ensuring the continuity of  
12      Landsat coverage into the 21st century.

13          (9) Because Landsat data are particularly im-  
14      portant for national security purposes and global en-  
15      vironmental change research, management respon-  
16      sibilities for the program should be transferred from  
17      the Department of Commerce to an integrated pro-  
18      gram management involving the Department of De-  
19      fense and the Administration.

20          (10) Regardless of management responsibilities  
21      for the Landsat program, the Nation's broad civil-  
22      ian, national security, commercial, and foreign policy  
23      interests in remote sensing will best be served by en-  
24      suring that Landsat remains an unclassified pro-

1       gram that operates according to the principles of  
2       open skies and nondiscriminatory access.

3           (11) Technological advances aimed at reducing  
4       the size and weight of satellite systems hold the po-  
5       tential for dramatic reductions in the cost, and sub-  
6       stantial improvements in the capabilities, of future  
7       land remote sensing systems, but such technological  
8       advances have not been demonstrated for land re-  
9       mote sensing and therefore cannot be relied upon as  
10      the sole means of achieving data continuity for the  
11      Landsat program.

12          (12) A technology demonstration program in-  
13      volving advanced remote sensing technologies could  
14      serve a vital role in determining the design of a fol-  
15      low-on spacecraft to Landsat 7, while also helping to  
16      determine whether such a spacecraft should be fund-  
17      ed by the United States Government, by the private  
18      sector, or by an international consortium.

19          (13) To maximize the value of the Landsat pro-  
20      gram to the American public, unenhanced Landsat  
21      4 through 6 data should be made available, at a  
22      minimum, to United States Government agencies, to  
23      global environmental change researchers, and to  
24      other researchers that are financially supported by  
25      the United States Government, at the cost of ful-

1       filling user requests, and unenhanced Landsat 7  
2       data should be made available to all users at the  
3       cost of fulfilling user requests.

4           (14) To stimulate development of the commer-  
5       cial market for unenhanced data and value-added  
6       services, the United States Government should adopt  
7       a data policy for Landsat 7 which allows competition  
8       within the private sector for distribution of  
9       unenhanced data and value-added services.

10          (15) Development of the remote sensing market  
11       and the provision of commercial value-added services  
12       based on remote sensing data should remain exclu-  
13       sively the function of the private sector.

14          (16) It is in the best interest of the United  
15       States to maintain a permanent, comprehensive Gov-  
16       ernment archive of global Landsat and other land  
17       remote sensing data for long-term monitoring and  
18       study of the changing global environment.

19   **§ 1102. Definitions**

20       In this chapter:

21          (1) COST OF FULFILLING USER REQUESTS.—

22       The term “cost of fulfilling user requests” means  
23       the incremental costs associated with providing prod-  
24       uct generation, reproduction, and distribution of  
25       unenhanced data in response to user requests and

1 shall not include any acquisition, amortization, or  
2 depreciation of capital assets originally paid for by  
3 the United States Government or other costs not  
4 specifically attributable to fulfilling user requests.

5 (2) DATA CONTINUITY.—The term “data con-  
6 tinuity” means the continued acquisition and avail-  
7 ability of unenhanced data which are, from the point  
8 of view of the user—

9 (A) sufficiently consistent (in terms of ac-  
10 quisition geometry, coverage characteristics,  
11 and spectral characteristics) with previous  
12 Landsat data to allow comparisons for global  
13 and regional change detection and characteriza-  
14 tion; and

15 (B) compatible with such data and with  
16 methods used to receive and process such data.

17 (3) DATA PREPROCESSING.—The term “data  
18 preprocessing”—

19 (A) may include—

20 (i) rectification of system and sensor  
21 distortions in land remote sensing data as  
22 it is received directly from the satellite in  
23 preparation for delivery to a user;

24 (ii) registration of such data with re-  
25 spect to features of the Earth; and

1 (iii) calibration of spectral response  
2 with respect to such data; but

3 (B) does not include conclusions, manipu-  
4 lations, or calculations derived from such data,  
5 or a combination of such data with other data.

6 (4) LAND REMOTE SENSING.—The term “land  
7 remote sensing” means the collection of data which  
8 can be processed into imagery of surface features of  
9 the Earth from an unclassified satellite or satellites,  
10 other than an operational United States Government  
11 weather satellite.

12 (5) LANDSAT PROGRAM MANAGEMENT.—The  
13 term “Landsat Program Management” means the  
14 integrated program management structure—

15 (A) established by, and responsible to, the  
16 Administrator and the Secretary of Defense  
17 pursuant to section 1111(a) of this title; and

18 (B) consisting of appropriate officers and  
19 employees of the Administration, the Depart-  
20 ment of Defense, and any other United States  
21 Government agencies the President designates  
22 as responsible for the Landsat program.

23 (6) LANDSAT SYSTEM.—The term “Landsat  
24 system” means Landsats 1, 2, 3, 4, 5, and 6, and  
25 any follow-on land remote sensing system operated

1 and owned by the United States Government, along  
2 with any related ground equipment, systems, and fa-  
3 cilities owned by the United States Government.

4 (7) LANDSAT 6 CONTRACTOR.—The term  
5 “Landsat 6 contractor” means the private sector en-  
6 tity which was awarded the contract for spacecraft  
7 construction, operations, and data marketing rights  
8 for the Landsat 6 spacecraft.

9 (8) LANDSAT 7.—The term “Landsat 7” means  
10 the follow-on satellite to Landsat 6.

11 (9) NATIONAL SATELLITE LAND REMOTE SENS-  
12 ING DATA ARCHIVE.—The term “National Satellite  
13 Land Remote Sensing Data Archive” means the ar-  
14 chive established by the Secretary of the Interior  
15 pursuant to the archival responsibilities defined in  
16 section 1142 of this title.

17 (10) NONCOMMERCIAL PURPOSES.—The term  
18 “noncommercial purposes” means activities under-  
19 taken by individuals or entities on the condition,  
20 upon receipt of unenhanced data, that—

21 (A) such data shall not be used in connec-  
22 tion with any bid for a commercial contract, de-  
23 velopment of a commercial product, or any  
24 other non-United States Government activity

1           that is expected, or has the potential, to be  
2           profitmaking;

3           (B) the results of such activities are dis-  
4           closed in a timely and complete fashion in the  
5           open technical literature or other method of  
6           public release, except when such disclosure by  
7           the United States Government or its contrac-  
8           tors would adversely affect the national security  
9           or foreign policy of the United States or violate  
10          a provision of law or regulation; and

11          (C) such data shall not be distributed in  
12          competition with unenhanced data provided by  
13          the Landsat 6 contractor.

14          (11) SECRETARY.—The term “Secretary”  
15          means the Secretary of Commerce.

16          (12) UNENHANCED DATA.—The term  
17          “unenhanced data” means land remote sensing sig-  
18          nals or imagery products that are unprocessed or  
19          subject only to data preprocessing.

20          (13) UNITED STATES GOVERNMENT AND ITS  
21          AFFILIATED USERS.—The term “United States Gov-  
22          ernment and its affiliated users” means—

23                (A) United States Government agencies;



(B) researchers involved with the United States Global Change Research Program and its international counterpart programs; and

(C) other researchers and international entities that have signed with the United States Government a cooperative agreement involving the use of Landsat data for noncommercial purposes.

## SUBCHAPTER II—LANDSAT

### **§ 1111. Landsat Program Management**

(a) ESTABLISHMENT.—The Administrator and the Secretary of Defense shall be responsible for management of the Landsat program. Such responsibility shall be carried out by establishing an integrated program management structure for the Landsat system.

(b) MANAGEMENT PLAN.—The Administrator, the Secretary of Defense, and any other United States Government official the President designates as responsible for part of the Landsat program shall establish, through a management plan, the roles, responsibilities, and funding expectations for the Landsat program of the appropriate United States Government agencies. The management plan shall—

(1) specify that the fundamental goal of the Landsat Program Management is the continuity of

1 unenhanced Landsat data through the acquisition  
2 and operation of a Landsat 7 satellite as quickly as  
3 practicable which is, at a minimum, functionally  
4 equivalent to the Landsat 6 satellite, with the addi-  
5 tion of a tracking and data relay satellite commu-  
6 nications capability;

7 (2) include a baseline funding profile that—

8 (A) is mutually acceptable to the Adminis-  
9 tration and the Department of Defense for the  
10 period covering the development and operation  
11 of Landsat 7; and

12 (B) provides for total funding responsi-  
13 bility of the Administration and the Depart-  
14 ment of Defense, respectively, to be approxi-  
15 mately equal to the funding responsibility of the  
16 other as spread across the development and  
17 operational life of Landsat 7;

18 (3) specify that any improvements over the  
19 Landsat 6 functional equivalent capability for  
20 Landsat 7 will be funded by a specific sponsoring  
21 agency or agencies, in a manner agreed to by the  
22 Landsat Program Management, if the required fund-  
23 ing exceeds the baseline funding profile required by  
24 paragraph (2), and that additional improvements

1 will be sought only if the improvements will not jeopardize data continuity; and

3 (4) provide for a technology demonstration program whose objective shall be the demonstration of  
4 advanced land remote sensing technologies that may  
5 potentially yield a system which is less expensive to  
6 build and operate, and more responsive to data  
7 users, than is the current Landsat system.

9 (c) RESPONSIBILITIES.—The Landsat Program Management shall be responsible for—

11 (1) Landsat 7 procurement, launch, and operations;  
12

13 (2) ensuring that the operation of the Landsat system is responsive to the broad interests of the civilian, national security, commercial, and foreign  
14 users of the Landsat system;  
15

17 (3) ensuring that all unenhanced Landsat data remain unclassified and that, except as provided in  
18 subsections (a) and (b) of section 1146 of this title,  
19 no restrictions are placed on the availability of  
20 unenhanced data;  
21

22 (4) ensuring that land remote sensing data of high priority locations will be acquired by the  
23 Landsat 7 system as required to meet the needs of  
24 the United States Global Change Research Program,  
25

1 as established in the Global Change Research Act of  
2 1990 (15 U.S.C. 2921 et seq.), and to meet the  
3 needs of national security users;

4 (5) Landsat data responsibilities pursuant to  
5 this chapter;

6 (6) oversight of Landsat contracts entered into  
7 under section 1112 of this title;

8 (7) coordination of a technology demonstration  
9 program pursuant to section 1133 of this title; and

10 (8) ensuring that copies of data acquired by the  
11 Landsat system are provided to the National Sat-  
12 ellite Land Remote Sensing Data Archive.

13 (d) AUTHORITY TO CONTRACT.—The Landsat Pro-  
14 gram Management may, subject to appropriations and  
15 only under the existing contract authority of the United  
16 States Government agencies that compose the Landsat  
17 Program Management, enter into contracts with the pri-  
18 vate sector for services such as satellite operations and  
19 data preprocessing.

20 (e) LANDSAT ADVISORY PROCESS.—

21 (1) ADVICE AND COMMENTS.—The Landsat  
22 Program Management shall seek impartial advice  
23 and comments regarding the status, effectiveness,  
24 and operation of the Landsat system, using existing  
25 advisory committees and other appropriate mecha-

1 nisms. Such advice shall be sought from individuals  
2 who represent—

3 (A) a broad range of perspectives on basic  
4 and applied science and operational needs with  
5 respect to land remote sensing data;

6 (B) the full spectrum of users of Landsat  
7 data, including representatives from United  
8 States Government agencies, State and local  
9 government agencies, academic institutions,  
10 nonprofit organizations, value-added companies,  
11 the agricultural, mineral extraction, and other  
12 user industries, and the public; and

13 (C) a broad diversity of age groups, sexes,  
14 and races.

15 (2) REPORTS.—The Landsat Program Manage-  
16 ment shall prepare and submit biennially a report to  
17 Congress which—

18 (A) reports the public comments received  
19 pursuant to paragraph (1); and

20 (B) includes—

21 (i) a response to the public comments  
22 received pursuant to paragraph (1);

23 (ii) information on the volume of use,  
24 by category, of data from the Landsat sys-  
25 tem; and

1 (iii) any recommendations for policy  
2 or programmatic changes to improve the  
3 utility and operation of the Landsat sys-  
4 tem.

5 **§ 1112. Procurement of Landsat 7**

6 (a) CONTRACT NEGOTIATIONS.—The Landsat Pro-  
7 gram Management shall, subject to appropriations and  
8 only under the existing contract authority of the United  
9 States Government agencies that compose the Landsat  
10 Program Management, expeditiously contract with a  
11 United States private sector entity for the development  
12 and delivery of Landsat 7.

13 (b) DEVELOPMENT AND DELIVERY CONSIDER-  
14 ATION.—In negotiating a contract under this section for  
15 the development and delivery of Landsat 7, the Landsat  
16 Program Management shall—

17 (1) seek, as a fundamental objective, to have  
18 Landsat 7 operational by the expected end of the de-  
19 sign life of Landsat 6;

20 (2) seek to ensure data continuity by the devel-  
21 opment and delivery of a satellite which is, at a min-  
22 imum, functionally equivalent to the Landsat 6 sat-  
23 ellite; and

24 (3) seek to incorporate in Landsat 7 any per-  
25 formance improvements required to meet United

1 States Government needs that would not jeopardize  
2 data continuity.

3 (c) NOTIFICATION OF COST AND SCHEDULE  
4 CHANGES.—The Landsat Program Management shall  
5 promptly notify Congress of any significant deviations  
6 from the expected cost, delivery date, and launch date of  
7 Landsat 7, that are specified by the Landsat Program  
8 Management upon award of the contract under this sec-  
9 tion.

10 (d) UNITED STATES PRIVATE SECTOR ENTITIES.—  
11 The Landsat Program Management shall, for purposes of  
12 this chapter, define the term “United States private sector  
13 entities”, taking into account the location of operations,  
14 assets, personnel, and other such factors.

15 **§ 1113. Transfer of Landsat 6 program responsibil-**  
16 **ities**

17 The responsibilities of the Secretary with respect to  
18 Landsat 6 shall be transferred to the Landsat Program  
19 Management, as agreed to between the Secretary and the  
20 Landsat Program Management, pursuant to section 1111  
21 of this title.

22 **§ 1114. Data policy for Landsat 7**

23 (a) LANDSAT 7 DATA POLICY.—The Landsat Pro-  
24 gram Management, in consultation with other appropriate

1 United States Government agencies, shall develop a data  
2 policy for Landsat 7 which should—

3 (1) ensure that unenhanced data are available  
4 to all users at the cost of fulfilling user requests;

5 (2) ensure timely and dependable delivery of  
6 unenhanced data to the full spectrum of civilian, na-  
7 tional security, commercial, and foreign users and  
8 the National Satellite Land Remote Sensing Data  
9 Archive;

10 (3) ensure that the United States retains own-  
11 ership of all unenhanced data generated by Landsat  
12 7;

13 (4) support the development of the commercial  
14 market for remote sensing data;

15 (5) ensure that the provision of commercial  
16 value-added services based on remote sensing data  
17 remains exclusively the function of the private sec-  
18 tor; and

19 (6) to the extent possible, ensure that the data  
20 distribution system for Landsat 7 is compatible with  
21 the Earth Observing System Data and Information  
22 System.

23 (b) ADDITIONAL DATA POLICY CONSIDERATIONS.—  
24 In addition, the data policy for Landsat 7 may provide  
25 for—



1           (1) United States private sector entities to op-  
 2           erate ground receiving stations in the United States  
 3           for Landsat 7 data;

4           (2) other means for direct access by private sec-  
 5           tor entities to unenhanced data from Landsat 7; and

6           (3) the United States Government to charge a  
 7           per image fee, license fee, or other such fee to enti-  
 8           ties operating ground receiving stations or distrib-  
 9           uting Landsat 7 data.

## 10       SUBCHAPTER III—LICENSING OF PRIVATE 11       REMOTE SENSING SPACE SYSTEMS

### 12   § 1121. **General licensing authority**

13       (a) LICENSING AUTHORITY OF SECRETARY.—

14           (1) IN GENERAL.—In consultation with other  
 15           appropriate United States Government agencies, the  
 16           Secretary is authorized to license private sector par-  
 17           ties to operate private remote sensing space systems  
 18           for such period as the Secretary may specify and in  
 19           accordance with the provisions of this subchapter.

20           (2) LIMITATION WITH RESPECT TO SYSTEM  
 21           USED FOR OTHER PURPOSES.—In the case of a pri-  
 22           vate space system that is used for remote sensing  
 23           and other purposes, the authority of the Secretary  
 24           under this subchapter shall be limited only to the re-  
 25           mote sensing operations of such space system.

1 (b) COMPLIANCE WITH LAW, REGULATIONS, INTER-  
2 NATIONAL OBLIGATIONS, AND NATIONAL SECURITY.—

3 (1) IN GENERAL.—No license shall be granted  
4 by the Secretary unless the Secretary determines in  
5 writing that the applicant will comply with the re-  
6 quirements of this chapter, any regulations issued  
7 pursuant to this chapter, and any applicable inter-  
8 national obligations and national security concerns  
9 of the United States.

10 (2) LIST OF REQUIREMENTS FOR COMPLETE  
11 APPLICATION.—The Secretary shall publish in the  
12 Federal Register a complete and specific list of all  
13 information required to comprise a complete applica-  
14 tion for a license under this subchapter. An applica-  
15 tion shall be considered complete when the applicant  
16 has provided all information required by the list  
17 most recently published in the Federal Register be-  
18 fore the date the application was first submitted.  
19 Unless the Secretary has, within 30 days after re-  
20 ceipt of an application, notified the applicant of in-  
21 formation necessary to complete an application, the  
22 Secretary may not deny the application on the basis  
23 of the absence of any such information.

24 (c) DEADLINE FOR ACTION ON APPLICATION.—The  
25 Secretary shall review any application and make a deter-

1 mination thereon within 120 days of the receipt of such  
2 application. If final action has not occurred within such  
3 time, the Secretary shall inform the applicant of any pend-  
4 ing issues and of actions required to resolve them.

5 (d) IMPROPER BASIS FOR DENIAL.—The Secretary  
6 shall not deny such license in order to protect any existing  
7 licensee from competition.

8 (e) REQUIREMENT TO PROVIDE UNENHANCED  
9 DATA.—

10 (1) DESIGNATION OF DATA.—The Secretary, in  
11 consultation with other appropriate United States  
12 Government agencies and pursuant to paragraph  
13 (2), shall designate in a license issued pursuant to  
14 this subchapter any unenhanced data required to be  
15 provided by the licensee under section 1122(b)(3) of  
16 this title.

17 (2) PRELIMINARY DETERMINATION.—The Sec-  
18 retary shall make a designation under paragraph (1)  
19 after determining that—

20 (A) such data are generated by a system  
21 for which all or a substantial part of the devel-  
22 opment, fabrication, launch, or operations costs  
23 have been or will be directly funded by the  
24 United States Government; or

1 (B) it is in the interest of the United  
2 States to require such data to be provided by  
3 the licensee consistent with section 1122(b)(3)  
4 of this title, after considering the impact on the  
5 licensee and the importance of promoting wide-  
6 spread access to remote sensing data from  
7 United States and foreign systems.

8 (3) CONSISTENCY WITH CONTRACT OR OTHER  
9 ARRANGEMENT.—A designation made by the Sec-  
10 retary under paragraph (1) shall not be inconsistent  
11 with any contract or other arrangement entered into  
12 between a United States Government agency and the  
13 licensee.

14 **§ 1122. Conditions for operation**

15 (a) LICENSE REQUIRED FOR OPERATION.—No per-  
16 son that is subject to the jurisdiction or control of the  
17 United States may, directly or through any subsidiary or  
18 affiliate, operate any private remote sensing space system  
19 without a license pursuant to section 1121 of this title.

20 (b) LICENSING REQUIREMENTS.—Any license issued  
21 pursuant to this subchapter shall specify that the licensee  
22 shall comply with all of the requirements of this chapter  
23 and shall—

24 (1) operate the system in such manner as to  
25 preserve the national security of the United States

1 and to observe the international obligations of the  
2 United States in accordance with section 1146 of  
3 this title;

4 (2) make available to the government of any  
5 country (including the United States) unenhanced  
6 data collected by the system concerning the territory  
7 under the jurisdiction of such government as soon as  
8 such data are available and on reasonable terms and  
9 conditions;

10 (3) make unenhanced data designated by the  
11 Secretary in the license pursuant to section 1121(e)  
12 of this title available in accordance with section  
13 1141 of this title;

14 (4) upon termination of operations under the li-  
15 cense, make disposition of any satellites in space in  
16 a manner satisfactory to the President;

17 (5) furnish the Secretary with complete orbit  
18 and data collection characteristics of the system, and  
19 inform the Secretary immediately of any deviation;  
20 and

21 (6) notify the Secretary of any significant or  
22 substantial agreement the licensee intends to enter  
23 with a foreign nation, entity, or consortium involving  
24 foreign nations or entities.

1       (c) ADDITIONAL LICENSING REQUIREMENTS FOR  
2 LANDSAT 6 CONTRACTOR.—In addition to the require-  
3 ments of subsection (b), any license issued pursuant to  
4 this subchapter to the Landsat 6 contractor shall specify  
5 that the Landsat 6 contractor shall—

6           (1) notify the Secretary of any value added ac-  
7 tivities (as defined by the Secretary by regulation)  
8 that will be conducted by the Landsat 6 contractor  
9 or by a subsidiary or affiliate; and

10          (2) if such activities are to be conducted, pro-  
11 vide the Secretary with a plan for compliance with  
12 section 1141 of this title.

13 **§ 1123. Administrative authority of Secretary**

14       (a) FUNCTIONS.—In order to carry out the respon-  
15 sibilities specified in this subchapter, the Secretary may—

16           (1) grant, condition, or transfer licenses under  
17 this chapter;

18           (2) seek an order of injunction or similar judi-  
19 cial determination from a district court of the  
20 United States with personal jurisdiction over the li-  
21 censee to terminate, modify, or suspend licenses  
22 under this subchapter and to terminate licensed op-  
23 erations on an immediate basis, if the Secretary de-  
24 termines that the licensee has substantially failed to  
25 comply with any provisions of this chapter, with any

1 terms, conditions, or restrictions of such license, or  
2 with any international obligations or national secu-  
3 rity concerns of the United States;

4 (3) provide penalties for noncompliance with  
5 the requirements of licenses or regulations issued  
6 under this subchapter, including civil penalties not  
7 to exceed \$10,000 (each day of operation in violation  
8 of such licenses or regulations constituting a sepa-  
9 rate violation);

10 (4) compromise, modify, or remit any such civil  
11 penalty;

12 (5) issue subpoenas for any materials, docu-  
13 ments, or records, or for the attendance and testi-  
14 mony of witnesses for the purpose of conducting a  
15 hearing under this section;

16 (6) seize any object, record, or report pursuant  
17 to a warrant from a magistrate based on a showing  
18 of probable cause to believe that such object, record,  
19 or report was used, is being used, or is likely to be  
20 used in violation of this chapter or the requirements  
21 of a license or regulation issued thereunder; and

22 (7) make investigations and inquiries and ad-  
23 minister to or take from any person an oath, affir-  
24 mation, or affidavit concerning any matter relating  
25 to the enforcement of this chapter.

1 (b) REVIEW OF AGENCY ACTION.—Any applicant or  
 2 licensee that makes a timely request for review of an ad-  
 3 verse action pursuant to paragraph (1), (3), (5), or (6)  
 4 of subsection (a) shall be entitled to adjudication by the  
 5 Secretary on the record after an opportunity for any agen-  
 6 cy hearing with respect to such adverse action. Any final  
 7 action by the Secretary under this subsection shall be sub-  
 8 ject to judicial review under chapter 7 of title 5.

9 **§ 1124. Regulatory authority of Secretary**

10 The Secretary may issue regulations to carry out this  
 11 subchapter. Such regulations shall be promulgated only  
 12 after public notice and comment in accordance with the  
 13 provisions of section 553 of title 5.

14 **§ 1125. Agency activities**

15 (a) LICENSE APPLICATION AND ISSUANCE.—A pri-  
 16 vate sector party may apply for a license to operate a pri-  
 17 vate remote sensing space system which utilizes, on a  
 18 space-available basis, a civilian United States Government  
 19 satellite or vehicle as a platform for such system. The Sec-  
 20 retary, pursuant to this subchapter, may license such sys-  
 21 tem if it meets all conditions of this subchapter and—

22 (1) the system operator agrees to reimburse the  
 23 Government in a timely manner for all related costs  
 24 incurred with respect to such utilization, including a



1 reasonable and proportionate share of fixed, plat-  
2 form, data transmission, and launch costs; and

3 (2) such utilization would not interfere with or  
4 otherwise compromise intended civilian Government  
5 missions, as determined by the agency responsible  
6 for such civilian platform.

7 (b) ASSISTANCE.—The Secretary may offer assist-  
8 ance to private sector parties in finding appropriate oppor-  
9 tunities for such utilization.

10 (c) AGREEMENTS.—To the extent provided in ad-  
11 vance by appropriation Acts, any United States Govern-  
12 ment agency may enter into agreements for such utiliza-  
13 tion if such agreements are consistent with such agency's  
14 mission and statutory authority, and if such remote sens-  
15 ing space system is licensed by the Secretary before com-  
16 mencing operation.

17 (d) APPLICABILITY.—This section does not apply to  
18 activities carried out under subchapter IV.

19 (e) EFFECT ON FCC AUTHORITY.—Nothing in this  
20 subchapter shall affect the authority of the Federal Com-  
21 munications Commission pursuant to the Communications  
22 Act of 1934 (47 U.S.C. 151 et seq.).

1 SUBCHAPTER IV—RESEARCH, DEVELOPMENT,  
2 AND DEMONSTRATION

3 **§ 1131. Continued Federal research and development**

4 (a) ROLES OF ADMINISTRATION AND DEPARTMENT  
5 OF DEFENSE.—

6 (1) IN GENERAL.—The Administrator and the  
7 Secretary of Defense are directed to continue and to  
8 enhance programs of remote sensing research and  
9 development.

10 (2) ADMINISTRATION ACTIVITIES AUTHORIZED  
11 AND ENCOURAGED.—The Administrator is author-  
12 ized and encouraged to—

13 (A) conduct experimental space remote  
14 sensing programs (including applications dem-  
15 onstration programs and basic research at uni-  
16 versities);

17 (B) develop remote sensing technologies  
18 and techniques, including those needed for mon-  
19 itoring the Earth and its environment; and

20 (C) conduct such research and develop-  
21 ment in cooperation with other United States  
22 Government agencies and with public and pri-  
23 vate research entities (including private indus-  
24 try, universities, non-profit organizations, State  
25 and local governments, foreign governments,

1           and international organizations) and to enter  
2           into arrangements (including joint ventures)  
3           which will foster such cooperation.

4           (b) ROLES OF DEPARTMENT OF AGRICULTURE AND  
5 DEPARTMENT OF THE INTERIOR.—

6           (1) IN GENERAL.—In order to enhance the abil-  
7           ity of the United States to manage and utilize its re-  
8           newable and nonrenewable resources, the Secretary  
9           of Agriculture and the Secretary of the Interior are  
10          authorized and encouraged to conduct programs of  
11          research and development in the applications of re-  
12          mote sensing using funds appropriated for such pur-  
13          poses.

14          (2) ACTIVITIES THAT MAY BE INCLUDED.—  
15          Such programs may include basic research at univer-  
16          sities, demonstrations of applications, and coopera-  
17          tive activities involving other Government agencies,  
18          private sector parties, and foreign and international  
19          organizations.

20          (c) ROLE OF OTHER FEDERAL AGENCIES.—Other  
21 United States Government agencies are authorized and  
22 encouraged to conduct research and development on the  
23 use of remote sensing in the fulfillment of their authorized  
24 missions, using funds appropriated for such purposes.

1 **§ 1132. Availability of federally gathered unenhanced**  
2 **data**

3 (a) IN GENERAL.—All unenhanced land remote sens-  
4 ing data gathered and owned by the United States Gov-  
5 ernment, including unenhanced data gathered under the  
6 technology demonstration program carried out pursuant  
7 to section 1133 of this title, shall be made available to  
8 users in a timely fashion.

9 (b) PROTECTION FOR COMMERCIAL DATA DIS-  
10 TRIBUTOR.—The President shall seek to ensure that  
11 unenhanced data gathered under the technology dem-  
12 onstration program carried out pursuant to section 1133  
13 of this title shall, to the extent practicable, be made avail-  
14 able on terms that would not adversely affect the commer-  
15 cial market for unenhanced data gathered by the Landsat  
16 6 spacecraft.

17 **§ 1133. Technology demonstration program**

18 (a) ESTABLISHMENT.—As a fundamental component  
19 of a national land remote sensing strategy, the President  
20 shall establish, through appropriate United States Govern-  
21 ment agencies, a technology demonstration program. The  
22 goals of the program shall be to—

23 (1) seek to launch advanced land remote sens-  
24 ing system components within 5 years after October  
25 28, 1992;

1           (2) demonstrate within such 5-year period ad-  
2       vanced sensor capabilities suitable for use in the an-  
3       ticipated land remote sensing program; and

4           (3) demonstrate within such 5-year period an  
5       advanced land remote sensing system design that  
6       could be less expensive to procure and operate than  
7       the Landsat system projected to be in operation  
8       through the year 2000, and that therefore holds  
9       greater potential for private sector investment and  
10      control.

11      (b) EXECUTION OF PROGRAM.—In executing the  
12   technology demonstration program, the President shall  
13   seek to apply technologies associated with United States  
14   National Technical Means of intelligence gathering, to the  
15   extent that such technologies are appropriate for the tech-  
16   nology demonstration and can be declassified for such pur-  
17   poses without causing adverse harm to United States na-  
18   tional security interests.

19      (c) BROAD APPLICATION.—To the greatest extent  
20   practicable, the technology demonstration program estab-  
21   lished under subsection (a) shall be designed to be respon-  
22   sive to the broad civilian, national security, commercial,  
23   and foreign policy needs of the United States.

1 (d) PRIVATE SECTOR FUNDING.—The technology  
2 demonstration program under this section may be carried  
3 out in part with private sector funding.

4 (e) LANDSAT PROGRAM MANAGEMENT COORDINA-  
5 TION.—The Landsat Program Management shall have a  
6 coordinating role in the technology demonstration pro-  
7 gram carried out under this section.

## 8 SUBCHAPTER V—GENERAL PROVISIONS

### 9 § 1141. Nondiscriminatory data availability

10 (a) IN GENERAL.—Except as provided in subsection  
11 (b), any unenhanced data generated by the Landsat sys-  
12 tem or any other land remote sensing system funded and  
13 owned by the United States Government shall be made  
14 available to all users without preference, bias, or any other  
15 special arrangement (except on the basis of national secu-  
16 rity concerns pursuant to section 1146 of this title) re-  
17 garding delivery, format, pricing, or technical consider-  
18 ations which would favor one customer or class of cus-  
19 tomers over another.

20 (b) EXCEPTIONS.—Unenhanced data generated by  
21 the Landsat system or any other land remote sensing sys-  
22 tem funded and owned by the United States Government  
23 may be made available to the United States Government  
24 and its affiliated users at reduced prices, in accordance

1 with this chapter, on the condition that such unenhanced  
2 data are used solely for noncommercial purposes.

3 **§ 1142. Archiving of data**

4 (a) PUBLIC INTEREST.—It is in the public interest  
5 for the United States Government to—

6 (1) maintain an archive of land remote sensing  
7 data for historical, scientific, and technical purposes,  
8 including long-term global environmental monitoring;

9 (2) control the content and scope of the archive;  
10 and

11 (3) ensure the quality, integrity, and continuity  
12 of the archive.

13 (b) ARCHIVING PRACTICES.—The Secretary of the  
14 Interior, in consultation with the Landsat Program Man-  
15 agement, shall provide for long-term storage, mainte-  
16 nance, and upgrading of a basic, global, land remote sens-  
17 ing data set (hereafter in this section referred to as the  
18 “basic data set”) and shall follow reasonable archival  
19 practices to ensure proper storage and preservation of the  
20 basic data set and timely access for parties requesting  
21 data.

22 (c) DETERMINATION OF CONTENT OF BASIC DATA  
23 SET.—In determining the initial content of, or in upgrad-  
24 ing, the basic data set, the Secretary of the Interior  
25 shall—

1           (1) use as a baseline the data archived on Octo-  
2       ber 28, 1992;

3           (2) take into account future technical and sci-  
4       entific developments and needs, paying particular at-  
5       tention to the anticipated data requirements of glob-  
6       al environmental change research;

7           (3) consult with and seek the advice of users  
8       and producers of remote sensing data and data  
9       products;

10          (4) consider the need for data which may be  
11       duplicative in terms of geographical coverage but  
12       which differ in terms of season, spectral bands, reso-  
13       lution, or other relevant factors;

14          (5) include, as the Secretary of the Interior  
15       considers appropriate, unenhanced data generated  
16       either by the Landsat system, pursuant to sub-  
17       chapter II, or by licensees under subchapter III;

18          (6) include, as the Secretary of the Interior  
19       considers appropriate, data collected by foreign  
20       ground stations or by foreign remote sensing space  
21       systems; and

22          (7) ensure that the content of the archive is de-  
23       veloped in accordance with section 1146 of this title.

24       (d) PUBLIC DOMAIN.—After the expiration of any ex-  
25       clusive right to sell, or after relinquishment of such right,



1 the data provided to the National Satellite Land Remote  
2 Sensing Data Archive shall be in the public domain and  
3 shall be made available to requesting parties by the Sec-  
4 retary of the Interior at the cost of fulfilling user requests.

5 **§ 1143. Nonreproduction**

6 Unenhanced data distributed by any licensee under  
7 subchapter III may be sold on the condition that such data  
8 will not be reproduced or disseminated by the purchaser  
9 for commercial purposes.

10 **§ 1144. Reimbursement for assistance**

11 The Administrator, the Secretary of Defense, and the  
12 heads of other United States Government agencies may  
13 provide assistance to land remote sensing system opera-  
14 tors under the provisions of this chapter. Substantial as-  
15 sistance shall be reimbursed by the operator, except as  
16 otherwise provided by law.

17 **§ 1145. Acquisition of equipment**

18 The Landsat Program Management may, by means  
19 of a competitive process, allow a licensee under subchapter  
20 III or any other private party to buy, lease, or otherwise  
21 acquire the use of equipment from the Landsat system,  
22 when such equipment is no longer needed for the operation  
23 of such system or for the sale of data from such system.  
24 Officials of other United States Government civilian agen-

1 cies are authorized and encouraged to cooperate with the  
2 Secretary in carrying out this section.

3 **§ 1146. Radio frequency allocation**

4 (a) APPLICATION TO FEDERAL COMMUNICATIONS  
5 COMMISSION.—To the extent required by the Communica-  
6 tions Act of 1934 (47 U.S.C. 151 et seq.), an application  
7 shall be filed with the Federal Communications Commis-  
8 sion for any radio facilities involved with commercial re-  
9 mote sensing space systems licensed under subchapter III.

10 (b) DEADLINE FOR FCC ACTION.—It is the intent  
11 of Congress that the Federal Communications Commis-  
12 sion complete the radio licensing process under the Com-  
13 munications Act of 1934 (47 U.S.C. 151 et seq.), upon  
14 the application of any private sector party or consortium  
15 operator of any commercial land remote sensing space sys-  
16 tem subject to this chapter, within 120 days of the receipt  
17 of an application for such licensing. If final action has not  
18 occurred within 120 days of the receipt of such an applica-  
19 tion, the Federal Communications Commission shall in-  
20 form the applicant of any pending issues and of actions  
21 required to resolve them.

22 (c) DEVELOPMENT AND CONSTRUCTION OF UNITED  
23 STATES SYSTEMS.—Authority shall not be required from  
24 the Federal Communications Commission for the develop-  
25 ment and construction of any United States land remote

1 sensing space system (or component thereof), other than  
2 radio transmitting facilities or components, while any li-  
3 censing determination is being made.

4 (d) CONSISTENCY WITH INTERNATIONAL OBLIGA-  
5 TIONS AND PUBLIC INTEREST.—Frequency allocations  
6 made pursuant to this section by the Federal Communica-  
7 tions Commission shall be consistent with international  
8 obligations and with the public interest.

9 **§ 1147. Consultation**

10 (a) CONSULTATION WITH SECRETARY OF DE-  
11 FENSE.—The Secretary and the Landsat Program Man-  
12 agement shall consult with the Secretary of Defense on  
13 all matters under this chapter affecting national security.  
14 The Secretary of Defense shall be responsible for deter-  
15 mining those conditions, consistent with this chapter, nec-  
16 essary to meet national security concerns of the United  
17 States and for notifying the Secretary and the Landsat  
18 Program Management promptly of such conditions.

19 (b) CONSULTATION WITH SECRETARY OF STATE.—

20 (1) IN GENERAL.—The Secretary and the  
21 Landsat Program Management shall consult with  
22 the Secretary of State on all matters under this  
23 chapter affecting international obligations. The Sec-  
24 retary of State shall be responsible for determining  
25 those conditions, consistent with this chapter, nec-

1        essary to meet international obligations and policies  
2        of the United States and for notifying promptly the  
3        Secretary and the Landsat Program Management of  
4        such conditions.

5            (2) INTERNATIONAL AID.—Appropriate United  
6        States Government agencies are authorized and en-  
7        couraged to provide remote sensing data, technology,  
8        and training to developing nations as a component  
9        of programs of international aid.

10           (3) REPORTING DISCRIMINATORY DISTRIBUTION.—The Secretary of State shall promptly report  
11        to the Secretary and Landsat Program Management  
12        to the Secretary and Landsat Program Management  
13        any instances outside the United States of discrimi-  
14        natory distribution of Landsat data.

15           (c) STATUS REPORT.—The Landsat Program Man-  
16        agement shall, as often as necessary, provide to Congress  
17        complete and updated information about the status of on-  
18        going operations of the Landsat system, including timely  
19        notification of decisions made with respect to the Landsat  
20        system in order to meet national security concerns and  
21        international obligations and policies of the United States  
22        Government.

23           (d) REIMBURSEMENTS.—If, as a result of technical  
24        modifications imposed on a licensee under subchapter III  
25        on the basis of national security concerns, the Secretary,

1 in consultation with the Secretary of Defense or with other  
2 Federal agencies, determines that additional costs will be  
3 incurred by the licensee, or that past development costs  
4 (including the cost of capital) will not be recovered by the  
5 licensee, the Secretary may require the agency or agencies  
6 requesting such technical modifications to reimburse the  
7 licensee for such additional or development costs, but not  
8 for anticipated profits. Reimbursements may cover costs  
9 associated with required changes in system performance,  
10 but not costs ordinarily associated with doing business  
11 abroad.

12 **§ 1148. Enforcement**

13 (a) IN GENERAL.—In order to ensure that  
14 unenhanced data from the Landsat system received solely  
15 for noncommercial purposes are not used for any commer-  
16 cial purpose, the Secretary (in collaboration with private  
17 sector entities responsible for the marketing and distribu-  
18 tion of unenhanced data generated by the Landsat system)  
19 shall develop and implement a system for enforcing this  
20 prohibition, in the event that unenhanced data from the  
21 Landsat system are made available for noncommercial  
22 purposes at a different price than such data are made  
23 available for other purposes.

24 (b) AUTHORITY OF SECRETARY.—Subject to sub-  
25 section (d), the Secretary may impose any of the enforce-

1 ment mechanisms described in subsection (c) against a  
2 person that—

3           (1) receives unenhanced data from the Landsat  
4           system under this chapter solely for noncommercial  
5           purposes (and at a different price than the price at  
6           which such data are made available for other pur-  
7           poses); and

8           (2) uses such data for other than noncommer-  
9           cial purposes.

10       (c) ENFORCEMENT MECHANISMS.—Enforcement  
11 mechanisms referred to in subsection (b) may include civil  
12 penalties of not more than \$10,000 (per day per violation),  
13 denial of further unenhanced data purchasing privileges,  
14 and any other penalties or restrictions the Secretary con-  
15 sidered necessary to ensure, to the greatest extent prac-  
16 ticable, that unenhanced data provided for noncommercial  
17 purposes are not used to unfairly compete in the commer-  
18 cial market against private sector entities not eligible for  
19 data at the cost of fulfilling user requests.

20       (d) PROCEDURES AND REGULATIONS.—The Sec-  
21 retary shall issue any regulations necessary to carry out  
22 this section and shall establish standards and procedures  
23 governing the imposition of enforcement mechanisms  
24 under subsection (b). The standards and procedures shall  
25 include a procedure for potentially aggrieved parties to file

1 formal protests with the Secretary alleging instances  
 2 where such unenhanced data have been, or are being, used  
 3 for commercial purposes in violation of the terms of re-  
 4 ceipt of such data. The Secretary shall promptly act to  
 5 investigate any such protest, and shall report annually to  
 6 Congress on instances of such violations.

## 7 SUBCHAPTER VI—PROHIBITION OF COMMER- 8 CIALIZATION OF WEATHER SATELLITES

### 9 **§ 1161. Prohibition**

10 Neither the President nor any other official of the  
 11 Government shall make any effort to lease, sell, or transfer  
 12 to the private sector, or commercialize, any portion of the  
 13 weather satellite systems operated by the Department of  
 14 Commerce or any successor agency.

### 15 **§ 1162. Future considerations**

16 Regardless of any change in circumstances subse-  
 17 quent to October 28, 1992, even if such change makes  
 18 it appear to be in the national interest to commercialize  
 19 weather satellites, neither the President nor any official  
 20 shall take any action prohibited by section 1161 of this  
 21 title unless this subchapter has first been repealed.

## 22 **CHAPTER 13—SPACE COMMERCE**

### SUBCHAPTER I—DEFINITIONS

Sec.  
 1301. Definitions.

### SUBCHAPTER II—PROMOTION OF COMMERCIAL SPACE OPPORTUNITIES

- 1311. Commercialization of Space Station.
- 1312. Promotion of United States Global Positioning System standards.
- 1313. Acquisition of space science data.
- 1314. Administration of commercial space centers.
- 1315. Sources of Earth Science data.

### SUBCHAPTER III—FEDERAL ACQUISITION OF SPACE TRANSPORTATION SERVICES

- 1331. Requirement to procure commercial space transportation services.
- 1332. Acquisition of commercial space transportation services.
- 1333. Shuttle privatization.
- 1334. Use of excess intercontinental ballistic missiles.
- 1335. National launch capability study.

## 1                   SUBCHAPTER I—DEFINITIONS

### 2   **§ 1301. Definitions**

3       In this chapter:

4           (1) **COMMERCIAL PROVIDER.**—The term “com-  
5       mercial provider” means any person providing space  
6       transportation services or other space-related activi-  
7       ties, primary control of which is held by persons  
8       other than Federal, State, local, and foreign govern-  
9       ments.

10          (2) **PAYLOAD.**—The term “payload” means  
11       anything that a person undertakes to transport to,  
12       from, or within outer space, or in suborbital trajec-  
13       tory, by means of a space transportation vehicle, but  
14       does not include the space transportation vehicle  
15       itself except for its components which are specifically  
16       designed or adapted for that payload.

17          (3) **SPACE-RELATED ACTIVITIES.**—The term  
18       “space-related activities” includes research and de-



1        velopment, manufacturing, processing, service, and  
2        other associated and support activities.

3            (4) SPACE TRANSPORTATION SERVICES.—The  
4        term “space transportation services” means the  
5        preparation of a space transportation vehicle and its  
6        payloads for transportation to, from, or within outer  
7        space, or in suborbital trajectory, and the conduct of  
8        transporting a payload to, from, or within outer  
9        space, or in suborbital trajectory.

10          (5) SPACE TRANSPORTATION VEHICLE.—The  
11        term “space transportation vehicle” means any vehi-  
12        cle constructed for the purpose of operating in, or  
13        transporting a payload to, from, or within, outer  
14        space, or in suborbital trajectory, and includes any  
15        component of such vehicle not specifically designed  
16        or adapted for a payload.

17          (6) STATE.—The term “State” means each of  
18        the several States of the Union, the District of Co-  
19        lumbia, the Commonwealth of Puerto Rico, the Vir-  
20        gin Islands, Guam, American Samoa, the Common-  
21        wealth of the Northern Mariana Islands, and any  
22        other commonwealth, territory, or possession of the  
23        United States.

24          (7) UNITED STATES COMMERCIAL PROVIDER.—  
25        The term “United States commercial provider”

1 means a commercial provider, organized under the  
2 laws of the United States or of a State, that is—

3 (A) more than 50 percent owned by United  
4 States nationals; or

5 (B) a subsidiary of a foreign company and  
6 the Secretary of Transportation finds that—

7 (i) such subsidiary has in the past evi-  
8 denced a substantial commitment to the  
9 United States market through—

10 (I) investments in the United  
11 States in long-term research, develop-  
12 ment, and manufacturing (including  
13 the manufacture of major components  
14 and subassemblies); and

15 (II) significant contributions to  
16 employment in the United States; and

17 (ii) the country or countries in which  
18 such foreign company is incorporated or  
19 organized, and, if appropriate, in which it  
20 principally conducts its business, affords  
21 reciprocal treatment to companies de-  
22 scribed in subparagraph (A) comparable to  
23 that afforded to such foreign company's  
24 subsidiary in the United States, as evi-  
25 denced by—

1 (I) providing comparable oppor-  
2 tunities for companies described in  
3 subparagraph (A) to participate in  
4 Government-sponsored research and  
5 development similar to that authorized  
6 under this chapter;

7 (II) providing no barriers, to  
8 companies described in subparagraph  
9 (A) with respect to local investment  
10 opportunities, that are not provided to  
11 foreign companies in the United  
12 States; and

13 (III) providing adequate and ef-  
14 fective protection for the intellectual  
15 property rights of companies de-  
16 scribed in subparagraph (A).

17 SUBCHAPTER II—PROMOTION OF COMMERCIAL  
18 SPACE OPPORTUNITIES

19 **§ 1311. Commercialization of Space Station**

20 Congress declares that a priority goal of constructing  
21 the International Space Station is the economic develop-  
22 ment of Earth orbital space. Congress further declares  
23 that free and competitive markets create the most efficient  
24 conditions for promoting economic development, and  
25 should therefore govern the economic development of

1 Earth orbital space. Congress further declares that the use  
2 of free market principles in operating, servicing, allocating  
3 the use of, and adding capabilities to the Space Station,  
4 and the resulting fullest possible engagement of commer-  
5 cial providers and participation of commercial users, will  
6 reduce Space Station operational costs for all partners and  
7 the Federal Government's share of the United States bur-  
8 den to fund operations.

9 **§ 1312. Promotion of United States Global Posi-**  
10 **tioning System standards**

11 (a) FINDING.—Congress finds that the Global Posi-  
12 tioning System, including satellites, signal equipment,  
13 ground stations, data links, and associated command and  
14 control facilities, has become an essential element in civil,  
15 scientific, and military space development because of the  
16 emergence of a United States commercial industry which  
17 provides Global Positioning System equipment and related  
18 services.

19 (b) INTERNATIONAL COOPERATION.—In order to  
20 support and sustain the Global Positioning System in a  
21 manner that will most effectively contribute to the na-  
22 tional security, public safety, scientific, and economic in-  
23 terests of the United States, Congress encourages the  
24 President to—

1           (1) ensure the operation of the Global Posi-  
2           tioning System on a continuous worldwide basis free  
3           of direct user fees;

4           (2) enter into international agreements that  
5           promote cooperation with foreign governments and  
6           international organizations to—

7                   (A) establish the Global Positioning Sys-  
8                   tem and its augmentations as an acceptable  
9                   international standard; and

10                   (B) eliminate any foreign barriers to appli-  
11                   cations of the Global Positioning System world-  
12                   wide; and

13           (3) provide clear direction and adequate re-  
14           sources to the Assistant Secretary of Commerce for  
15           Communications and Information so that on an  
16           international basis the Assistant Secretary can—

17                   (A) achieve and sustain efficient manage-  
18                   ment of the electromagnetic spectrum used by  
19                   the Global Positioning System; and

20                   (B) protect that spectrum from disruption  
21                   and interference.

22 **§ 1313. Acquisition of space science data**

23           (a) DEFINITION OF SPACE SCIENCE DATA.—In this  
24           section, the term “space science data” includes scientific  
25           data concerning—

1           (1) the elemental and mineralogical resources of  
2       the moon, asteroids, planets and their moons, and  
3       comets;

4           (2) microgravity acceleration; and

5           (3) solar storm monitoring.

6       (b) ACQUISITION FROM COMMERCIAL PROVIDERS.—

7   The Administrator shall, to the extent possible and while  
8   satisfying the scientific or educational requirements of the  
9   Administration, and where appropriate, of other Federal  
10  agencies and scientific researchers, acquire, where cost ef-  
11  fective, space science data from a commercial provider.

12       (c) TREATMENT OF SPACE SCIENCE DATA AS COM-

13  MERCIAL ITEM UNDER ACQUISITION LAWS.—Acquisitions

14  of space science data by the Administrator shall be carried  
15  out in accordance with applicable acquisition laws and reg-  
16  ulations (including chapters 137 and 140 of title 10). For  
17  purposes of such law and regulations, space science data  
18  shall be considered to be a commercial item. Nothing in  
19  this subsection shall be construed to preclude the United  
20  States from acquiring, through contracts with commercial  
21  providers, sufficient rights in data to meet the needs of  
22  the scientific and educational community or the needs of  
23  other government activities.

24       (d) SAFETY STANDARDS.—Nothing in this section

25  shall be construed to prohibit the Federal Government

1 from requiring compliance with applicable safety stand-  
2 ards.

3 (e) LIMITATION.—This section does not authorize the  
4 Administration to provide financial assistance for the de-  
5 velopment of commercial systems for the collection of  
6 space science data.

7 **§ 1314. Administration of commercial space centers**

8 The Administrator shall administer the Commercial  
9 Space Center program in a coordinated manner from Ad-  
10 ministration headquarters in Washington, D.C.

11 **§ 1315. Sources of Earth Science data**

12 (a) ACQUISITION.—The Administrator shall, to the  
13 extent possible and while satisfying the scientific or edu-  
14 cational requirements of the Administration, and where  
15 appropriate, of other Federal agencies and scientific re-  
16 searchers, acquire, where cost-effective, space-based and  
17 airborne Earth remote sensing data, services, distribution,  
18 and applications from a commercial provider.

19 (b) TREATMENT AS COMMERCIAL ITEM UNDER AC-  
20 QUISITION LAWS.—Acquisitions by the Administrator of  
21 the data, services, distribution, and applications referred  
22 to in subsection (a) shall be carried out in accordance with  
23 applicable acquisition laws and regulations (including  
24 chapters 137 and 140 of title 10). For purposes of such  
25 law and regulations, such data, services, distribution, and

1 applications shall be considered to be a commercial item.  
2 Nothing in this subsection shall be construed to preclude  
3 the United States from acquiring, through contracts with  
4 commercial providers, sufficient rights in data to meet the  
5 needs of the scientific and educational community or the  
6 needs of other government activities.

7 (c) SAFETY STANDARDS.—Nothing in this section  
8 shall be construed to prohibit the Federal Government  
9 from requiring compliance with applicable safety stand-  
10 ards.

11 (d) ADMINISTRATION AND EXECUTION.—This sec-  
12 tion shall be carried out as part of the Commercial Remote  
13 Sensing Program at the Stennis Space Center.

14 SUBCHAPTER III—FEDERAL ACQUISITION OF  
15 SPACE TRANSPORTATION SERVICES

16 **§1331. Requirement to procure commercial space**  
17 **transportation services**

18 (a) IN GENERAL.—Except as otherwise provided in  
19 this section, the Federal Government shall acquire space  
20 transportation services from United States commercial  
21 providers whenever such services are required in the  
22 course of its activities. To the maximum extent prac-  
23 ticable, the Federal Government shall plan missions to ac-  
24 commodate the space transportation services capabilities  
25 of United States commercial providers.



1       (b) EXCEPTIONS.—The Federal Government shall  
2 not be required to acquire space transportation services  
3 under subsection (a) if, on a case-by-case basis, the Ad-  
4 ministrator or, in the case of a national security issue,  
5 the Secretary of the Air Force, determines that—

6           (1) a payload requires the unique capabilities of  
7 the space shuttle;

8           (2) cost effective space transportation services  
9 that meet specific mission requirements would not be  
10 reasonably available from United States commercial  
11 providers when required;

12          (3) the use of space transportation services  
13 from United States commercial providers poses an  
14 unacceptable risk of loss of a unique scientific oppor-  
15 tunity;

16          (4) the use of space transportation services  
17 from United States commercial providers is incon-  
18 sistent with national security objectives;

19          (5) the use of space transportation services  
20 from United States commercial providers is incon-  
21 sistent with international agreements for inter-  
22 national collaborative efforts relating to science and  
23 technology;

24          (6) it is more cost effective to transport a pay-  
25 load in conjunction with a test or demonstration of

1 a space transportation vehicle owned by the Federal  
2 Government; or

3 (7) a payload can make use of the available  
4 cargo space on a space shuttle mission as a sec-  
5 ondary payload, and such payload is consistent with  
6 the requirements of research, development, dem-  
7 onstration, scientific, commercial, and educational  
8 programs authorized by the Administrator.

9 (c) AGREEMENTS WITH FOREIGN ENTITIES.—Noth-  
10 ing in this section shall prevent the Administrator from  
11 planning or negotiating agreements with foreign entities  
12 for the launch of Federal Government payloads for inter-  
13 national collaborative efforts relating to science and tech-  
14 nology.

15 (d) DELAYED EFFECT.—Subsection (a) shall not  
16 apply to space transportation services and space transpor-  
17 tation vehicles acquired or owned by the Federal Govern-  
18 ment before October 28, 1998, or with respect to which  
19 a contract for such acquisition or ownership has been en-  
20 tered into before October 28, 1998.

21 (e) HISTORICAL PURPOSES.—This section shall not  
22 be construed to prohibit the Federal Government from ac-  
23 quiring, owning, or maintaining space transportation vehi-  
24 cles solely for historical display purposes.

1 **§ 1332. Acquisition of commercial space transpor-**  
2 **tation services**

3 (a) TREATMENT OF COMMERCIAL SPACE TRANSPOR-  
4 TATION SERVICES AS COMMERCIAL ITEM UNDER ACQUI-  
5 SITION LAWS.—Acquisitions of space transportation serv-  
6 ices by the Federal Government shall be carried out in  
7 accordance with applicable acquisition laws and regula-  
8 tions (including chapters 137 and 140 of title 10). For  
9 purposes of such law and regulations, space transportation  
10 services shall be considered to be a commercial item.

11 (b) SAFETY STANDARDS.—Nothing in this section  
12 shall be construed to prohibit the Federal Government  
13 from requiring compliance with applicable safety stand-  
14 ards.

15 **§ 1333. Shuttle privatization**

16 The Administrator shall prepare for an orderly tran-  
17 sition from the Federal operation, or Federal management  
18 of contracted operation, of space transportation systems  
19 to the Federal purchase of commercial space transpor-  
20 tation services for all nonemergency space transportation  
21 requirements for transportation to and from Earth orbit,  
22 including human, cargo, and mixed payloads. In those  
23 preparations, the Administrator shall take into account  
24 the need for short-term economies, as well as the goal of  
25 restoring the Administration's research focus and its man-  
26 date to promote the fullest possible commercial use of

1 space. As part of those preparations, the Administrator  
2 shall plan for the potential privatization of the space shut-  
3 tle program. Such plan shall keep safety and cost effective-  
4 ness as high priorities. Nothing in this section shall pro-  
5 hibit the Administration from studying, designing, devel-  
6 oping, or funding upgrades or modifications essential to  
7 the safe and economical operation of the space shuttle  
8 fleet.

9 **§ 1334. Use of excess intercontinental ballistic mis-**  
10 **siles**

11 (a) IN GENERAL.—The Federal Government shall  
12 not—

13 (1) convert any missile described in subsection  
14 (c) to a space transportation vehicle configuration;  
15 or

16 (2) transfer ownership of any such missile to  
17 another person, except as provided in subsection (b).

18 (b) AUTHORIZED FEDERAL USES.—

19 (1) IN GENERAL.—A missile described in sub-  
20 section (c) may be converted for use as a space  
21 transportation vehicle by the Federal Government if,  
22 except as provided in paragraph (2) and at least 30  
23 days before such conversion, the agency seeking to  
24 use the missile as a space transportation vehicle  
25 transmits to the Committee on Armed Services and

1 the Committee on Science of the House of Rep-  
2 resentatives, and to the Committee on Armed Serv-  
3 ices and the Committee on Commerce, Science, and  
4 Transportation of the Senate, a certification that the  
5 use of such missile—

6 (A) would result in cost savings to the  
7 Federal Government when compared to the cost  
8 of acquiring space transportation services from  
9 United States commercial providers;

10 (B) meets all mission requirements of the  
11 agency, including performance, schedule, and  
12 risk requirements;

13 (C) is consistent with international obliga-  
14 tions of the United States; and

15 (D) is approved by the Secretary of De-  
16 fense or the designee of the Secretary of De-  
17 fense.

18 (2) EXCEPTION TO REQUIREMENT THAT CER-  
19 TIFICATION BE TRANSMITTED 30 DAYS BEFORE CON-  
20 VERSION.—The requirement under paragraph (1)  
21 that the certification described in that paragraph  
22 must be transmitted at least 30 days before conver-  
23 sion of the missile shall not apply if the Secretary  
24 of Defense determines that compliance with that re-

1        requirement would be inconsistent with meeting imme-  
2        diate national security requirements.

3        (c) MISSILES REFERRED TO.—The missiles referred  
4        to in this section are missiles owned by the United States  
5        that—

6                (1) were formerly used by the Department of  
7        Defense for national defense purposes as interconti-  
8        nental ballistic missiles; and

9                (2) have been declared excess to United States  
10       national defense needs and are in compliance with  
11       international obligations of the United States.

12   **§ 1335. National launch capability study**

13        (a) FINDINGS.—Congress finds that a robust satellite  
14       and launch industry in the United States serves the inter-  
15       est of the United States by—

16                (1) contributing to the economy of the United  
17       States;

18                (2) strengthening employment, technological,  
19       and scientific interests of the United States; and

20                (3) serving the foreign policy and national secu-  
21       rity interests of the United States.

22        (b) DEFINITIONS.—In this section:

23                (1) SECRETARY.—The term “Secretary” means  
24       the Secretary of Defense.

1           (2) TOTAL POTENTIAL NATIONAL MISSION  
2 MODEL.—The term “total potential national mission  
3 model” means a model that—

4           (A) is determined by the Secretary, in con-  
5 sultation with the Administrator, to assess the  
6 total potential space missions to be conducted  
7 in the United States during a specified period  
8 of time; and

9           (B) includes all launches in the United  
10 States (including launches conducted on or off  
11 a Federal range).

12 (c) REPORT.—

13           (1) IN GENERAL.—Not later than 180 days  
14 after October 28, 1998, the Secretary shall, in con-  
15 sultation with the Administrator and appropriate  
16 representatives of the satellite and launch industry  
17 and the governments of States and political subdivi-  
18 sions thereof—

19           (A) prepare a report that meets the re-  
20 quirements of this subsection; and

21           (B) submit that report to the Committee  
22 on Commerce, Science, and Transportation of  
23 the Senate and the Committee on Science of the  
24 House of Representatives.

1           (2) REQUIREMENTS FOR REPORT.—The report  
2       prepared under this subsection shall—

3           (A) identify the total potential national  
4       mission model for the period beginning on the  
5       date of the report and ending on December 31,  
6       2007;

7           (B) identify the resources that are nec-  
8       essary or available to carry out the total poten-  
9       tial national mission model described in sub-  
10      paragraph (A), including—

11           (i) launch property and services of the  
12      Department of Defense, the Administra-  
13      tion, and non-Federal facilities; and

14           (ii) the ability to support commercial  
15      launch-on-demand on short notification,  
16      taking into account Federal requirements,  
17      at launch sites or test ranges in the United  
18      States;

19           (C) identify each deficiency in the re-  
20      sources referred to in subparagraph (B); and

21           (D) with respect to the deficiencies identi-  
22      fied under subparagraph (C), include estimates  
23      of the level of funding necessary to address  
24      those deficiencies for the period described in  
25      subparagraph (A).



1 (d) RECOMMENDATIONS.—Based on the report under  
2 subsection (c), the Secretary, after consultation with the  
3 Secretary of Transportation, the Secretary of Commerce,  
4 and representatives from interested private sector entities,  
5 States, and local governments, shall—

6 (1) identify opportunities for investment by  
7 non-Federal entities (including States and political  
8 subdivisions thereof and private sector entities) to  
9 assist the Federal Government in providing launch  
10 capabilities for the commercial space industry in the  
11 United States;

12 (2) identify one or more methods by which, if  
13 sufficient resources referred to in subsection  
14 (c)(2)(D) are not available to the Department of De-  
15 fense and the Administration, the control of the  
16 launch property and launch services of the Depart-  
17 ment of Defense and the Administration may be  
18 transferred from the Department of Defense and the  
19 Administration to—

20 (A) one or more other Federal agencies;

21 (B) one or more States (or subdivisions  
22 thereof);

23 (C) one or more private sector entities; or

24 (D) any combination of the entities de-  
25 scribed in subparagraphs (A) to (C); and

1           (3) identify the technical, structural, and legal  
 2           impediments associated with making launch sites or  
 3           test ranges in the United States viable and competi-  
 4           tive.

5           **CHAPTER 15—COMMERCIAL REUSABLE**  
 6           **IN-SPACE TRANSPORTATION**

Sec.

1501. Findings.

1502. Definitions.

1503. Loan guarantees for production of commercial reusable in-space transportation.

7           **§ 1501. Findings**

8           Congress makes the following findings:

9           (1) It is in the national interest to encourage  
 10          the production of cost-effective, in-space transpor-  
 11          tation systems, which would be built and operated by  
 12          the private sector on a commercial basis.

13          (2) The use of reusable in-space transportation  
 14          systems will enhance performance levels of in-space  
 15          operations, enhance efficient and safe disposal of  
 16          satellites at the end of their useful lives, and in-  
 17          crease the capability and reliability of existing  
 18          ground-to-space launch vehicles.

19          (3) Commercial reusable in-space transportation  
 20          systems will enhance the economic well-being and  
 21          national security of the United States by reducing  
 22          space operations costs for commercial and national

1 space programs and by adding new space capabilities  
2 to space operations.

3 (4) Commercial reusable in-space transportation  
4 systems will provide new cost-effective space capa-  
5 bilities (including orbital transfers from low altitude  
6 orbits to high altitude orbits and return, the correc-  
7 tion of erroneous satellite orbits, and the recovery,  
8 refurbishment, and refueling of satellites) and the  
9 provision of upper stage functions to increase  
10 ground-to-orbit launch vehicle payloads to geo-  
11 stationary and other high energy orbits.

12 (5) Commercial reusable in-space transportation  
13 systems can enhance and enable the space explo-  
14 ration of the United States by providing lower cost  
15 trajectory injection from Earth orbit, transit trajec-  
16 tory control, and planet arrival deceleration to sup-  
17 port potential Administration missions to Mars,  
18 Pluto, and other planets.

19 (6) Satellites stranded in erroneous Earth orbit  
20 due to deficiencies in their launch represent substan-  
21 tial economic loss to the United States and present  
22 substantial concerns for the current backlog of na-  
23 tional space assets.

24 (7) Commercial reusable in-space transportation  
25 systems can provide new options for alternative

1 planning approaches and risk management to en-  
2 hance the mission assurance of national space as-  
3 sets.

4 (8) Commercial reusable in-space transportation  
5 systems developed by the private sector can provide  
6 in-space transportation services to the Administra-  
7 tion, the Department of Defense, the National Re-  
8 connaissance Office, and other agencies without the  
9 need for the United States to bear the cost of pro-  
10 duction of such systems.

11 (9) The availability of loan guarantees, with the  
12 cost of credit risk to the United States paid by the  
13 private sector, is an effective means by which the  
14 United States can help qualifying private sector  
15 companies secure otherwise unattainable private fi-  
16 nancing for the production of commercial reusable  
17 in-space transportation systems, while at the same  
18 time minimizing Government commitment and in-  
19 volvement in the development of such systems.

20 **§ 1502. Definitions**

21 In this chapter:

22 (1) **COMMERCIAL PROVIDER.**—The term “com-  
23 mercial provider” means any person or entity pro-  
24 viding commercial reusable in-orbit space transpor-  
25 tation services or systems, primary control of which

1 is held by persons other than the Federal Govern-  
2 ment, a State or local government, or a foreign gov-  
3 ernment.

4 (2) IN-SPACE TRANSPORTATION SERVICES.—  
5 The term “in-space transportation services” means  
6 operations and activities involved in the direct trans-  
7 portation or attempted transportation of a payload  
8 or object from one orbit to another by means of an  
9 in-space transportation vehicle.

10 (3) IN-SPACE TRANSPORTATION SYSTEM.—The  
11 term “in-space transportation system” means the  
12 space and ground elements, including in-space trans-  
13 portation vehicles and support space systems, and  
14 ground administration and control facilities and as-  
15 sociated equipment, necessary for the provision of  
16 in-space transportation services.

17 (4) IN-SPACE TRANSPORTATION VEHICLE.—The  
18 term “in-space transportation vehicle” means a vehi-  
19 cle designed—

20 (A) to be based and operated in space;

21 (B) to transport various payloads or ob-  
22 jects from one orbit to another orbit; and

23 (C) to be reusable and refueled in space.

24 (5) SECRETARY.—The term “Secretary” means  
25 the Secretary of Defense.

1 (6) UNITED STATES COMMERCIAL PROVIDER.—

2 The term “United States commercial provider”  
3 means any commercial provider organized under the  
4 laws of the United States that is more than 50 per-  
5 cent owned by United States nationals.

6 **§ 1503. Loan guarantees for production of commer-**  
7 **cial reusable in-space transportation**

8 (a) AUTHORITY TO MAKE LOAN GUARANTEES.—The  
9 Secretary may guarantee loans made to eligible United  
10 States commercial providers for purposes of producing  
11 commercial reusable in-space transportation services or  
12 systems.

13 (b) ELIGIBLE UNITED STATES COMMERCIAL PRO-  
14 VIDERS.—The Secretary shall prescribe requirements for  
15 the eligibility of United States commercial providers for  
16 loan guarantees under this section. Such requirements  
17 shall ensure that eligible providers are financially capable  
18 of undertaking a loan guaranteed under this section.

19 (c) LIMITATION ON LOANS GUARANTEED.—The Sec-  
20 retary may not guarantee a loan for a United States com-  
21 mercial provider under this section unless the Secretary  
22 determines that credit would not otherwise be reasonably  
23 available at the time of the guarantee for the commercial  
24 reusable in-space transportation service or system to be  
25 produced utilizing the proceeds of the loan.

1 (d) CREDIT SUBSIDY.—

2 (1) COLLECTION REQUIRED.—The Secretary  
3 shall collect from each United States commercial  
4 provider receiving a loan guarantee under this sec-  
5 tion an amount equal to the amount, as determined  
6 by the Secretary, to cover the cost, as defined in sec-  
7 tion 502(5) of the Federal Credit Reform Act of  
8 1990 (2 U.S.C. 661a(5)), of the loan guarantee.

9 (2) PERIODIC DISBURSEMENTS.—In the case of  
10 a loan guarantee in which proceeds of the loan are  
11 disbursed over time, the Secretary shall collect the  
12 amount required under this subsection on a pro rata  
13 basis, as determined by the Secretary, at the time of  
14 each disbursement.

15 (e) OTHER TERMS AND CONDITIONS.—

16 (1) PROHIBITION ON SUBORDINATION.—A loan  
17 guaranteed under this section may not be subordi-  
18 nated to another debt contracted by the United  
19 States commercial provider concerned, or to any  
20 other claims against such provider.

21 (2) RESTRICTION ON INCOME.—A loan guaran-  
22 teed under this section may not—

23 (A) provide income which is excluded from  
24 gross income for purposes of chapter 1 of the

1 Internal Revenue Code of 1986 (26 U.S.C. 1 et  
2 seq.); or

3 (B) provide significant collateral or secu-  
4 rity, as determined by the Secretary, for other  
5 obligations the income from which is so ex-  
6 cluded.

7 (3) TREATMENT OF GUARANTEE.—The guar-  
8 antee of a loan under this section shall be conclusive  
9 evidence of the following:

10 (A) That the guarantee has been properly  
11 obtained.

12 (B) That the loan qualifies for the guar-  
13 antee.

14 (C) That, but for fraud or material mis-  
15 representation by the holder of the loan, the  
16 guarantee is valid, legal, and enforceable.

17 (4) OTHER TERMS AND CONDITIONS.—The Sec-  
18 retary may establish any other terms and conditions  
19 for a guarantee of a loan under this section as the  
20 Secretary considers appropriate to protect the finan-  
21 cial interests of the United States.

22 (f) ENFORCEMENT OF RIGHTS.—

23 (1) IN GENERAL.—The Attorney General may  
24 take any action the Attorney General considers ap-



1       appropriate to enforce any right accruing to the United  
2       States under a loan guarantee under this section.

3           (2) FORBEARANCE.—The Attorney General  
4       may, with the approval of the parties concerned, for-  
5       bear from enforcing any right of the United States  
6       under a loan guaranteed under this section for the  
7       benefit of a United States commercial provider if  
8       such forbearance will not result in any cost, as de-  
9       fined in section 502(5) of the Federal Credit Reform  
10      Act of 1990 (2 U.S.C. 661a(5)), to the United  
11      States.

12          (3) UTILIZATION OF PROPERTY.—Notwith-  
13      standing any other provision of law and subject to  
14      the terms of a loan guaranteed under this section,  
15      upon the default of a United States commercial pro-  
16      vider under the loan, the Secretary may, at the elec-  
17      tion of the Secretary—

18           (A) assume control of the physical asset fi-  
19           nanced by the loan; and

20           (B) complete, recondition, reconstruct, ren-  
21           ovate, repair, maintain, operate, or sell the  
22           physical asset.

23      (g) CREDIT INSTRUMENTS.—

24          (1) AUTHORITY TO ISSUE INSTRUMENTS.—Not-  
25      withstanding any other provision of law, the Sec-

1       retary may, subject to such terms and conditions as  
 2       the Secretary considers appropriate, issue credit in-  
 3       struments to United States commercial providers of  
 4       in-space transportation services or systems, with the  
 5       aggregate cost (as determined under the provisions  
 6       of the Federal Credit Reform Act of 1990 (2 U.S.C.  
 7       661 et seq.)) of such instruments not to exceed  
 8       \$1,500,000,000, but only to the extent that new  
 9       budget authority to cover such costs is provided in  
 10      subsequent appropriations Acts or authority is oth-  
 11      erwise provided in subsequent appropriations Acts.

12           (2) CREDIT SUBSIDY.—The Secretary shall pro-  
 13      vide a credit subsidy for any credit instrument  
 14      issued under this subsection in accordance with the  
 15      provisions of the Federal Credit Reform Act of 1990  
 16      (2 U.S.C. 661 et seq.).

17           (3) CONSTRUCTION.—The eligibility of a United  
 18      States commercial provider of in-space transpor-  
 19      tation services or systems for a credit instrument  
 20      under this subsection is in addition to any eligibility  
 21      of such provider for a loan guarantee under other  
 22      provisions of this section.

23           **CHAPTER 17—COMMERCIAL SPACE**  
 24           **COMPETITIVENESS**

Sec.

1701. Findings.

1702. Definitions.

- 1703. Launch voucher demonstration program.
- 1704. Anchor tenancy and termination liability.
- 1705. Use of Government facilities.
- 1706. Commercial Space Achievement Award.

1   **§ 1701. Findings**

2           Congress finds that—

3               (1) commercial activities of the private sector  
4           have substantially contributed to the strength of  
5           both the United States space program and the na-  
6           tional economy;

7               (2) a robust United States space transportation  
8           capability remains a vital cornerstone of the United  
9           States space program;

10              (3) the availability of commercial launch serv-  
11           ices is essential for the continued growth of the  
12           United States commercial space sector;

13              (4) a timely extension of the excess third party  
14           claims payment provisions of chapter 701 of title 49  
15           is appropriate and necessary to enable the private  
16           sector to continue covering maximum probable liabil-  
17           ity risks while protecting the private sector from un-  
18           insurable levels of liability which could hinder inter-  
19           national competitiveness;

20              (5) a program to demonstrate how recipients of  
21           Federal grants can purchase launch services directly  
22           from the private sector has the potential to improve

1 the capabilities of the United States commercial  
2 launch industry;

3 (6) improvements and additions to the Nation's  
4 space transportation infrastructure contribute to a  
5 robust and cost effective space transportation capa-  
6 bility for both public sector and private sector users;

7 (7) private sector use of available Government  
8 facilities on a reimbursable basis contributes to a  
9 stronger commercial space sector;

10 (8) the Federal Government should purchase  
11 space goods and services which are commercially  
12 available, or could be made available commercially in  
13 response to a Government procurement request,  
14 whenever such goods or services meet Government  
15 mission requirements in a cost effective manner;

16 (9) it is appropriate for the Government to act  
17 as an anchor tenant for commercial space develop-  
18 ment projects which have a reasonable potential to  
19 develop non-Federal markets and which meet Fed-  
20 eral needs in a cost effective manner; and

21 (10) the provision of compensation to commer-  
22 cial providers of space goods and services for termi-  
23 nation of contracts at the convenience of the Govern-  
24 ment assists in enabling the private sector to invest

1 in space activities which are initially dependent on  
2 Government purchases.

3 **§ 1702. Definitions**

4 In this chapter:

5 (1) AGENCY.—The term “agency” means an  
6 executive agency as defined in section 105 of title 5.

7 (2) ANCHOR TENANCY.—The term “anchor ten-  
8 ancy” means an arrangement in which the United  
9 States Government agrees to procure sufficient  
10 quantities of a commercial space product or service  
11 needed to meet Government mission requirements so  
12 that a commercial venture is made viable.

13 (3) COMMERCIAL.—The term “commercial”  
14 means having—

15 (A) private capital at risk; and

16 (B) primary financial and management re-  
17 sponsibility for the activity reside with the pri-  
18 vate sector.

19 (4) COST EFFECTIVE.—The term “cost effec-  
20 tive” means costing no more than the available al-  
21 ternatives, determined by a comparison of all related  
22 direct and indirect costs including, in the case of  
23 Government costs, applicable Government labor and  
24 overhead costs as well as contractor charges, and  
25 taking into account the ability of each alternative to

1 accommodate mission requirements as well as the re-  
2 lated factors of risk, reliability, schedule, and tech-  
3 nical performance.

4 (5) LAUNCH.—The term “launch” means to  
5 place, or attempt to place, a launch vehicle and its  
6 payload, if any, in a suborbital trajectory, in Earth  
7 orbit in outer space, or otherwise in outer space.

8 (6) LAUNCH SERVICES.—The term “launch  
9 services” means activities involved in the preparation  
10 of a launch vehicle and its payload for launch and  
11 the conduct of a launch.

12 (7) LAUNCH SUPPORT FACILITIES.—The term  
13 “launch support facilities” means facilities located at  
14 launch sites or launch ranges that are required to  
15 support launch activities, including launch vehicle  
16 assembly, launch vehicle operations and control,  
17 communications, flight safety functions, and payload  
18 operations, control, and processing.

19 (8) LAUNCH VEHICLE.—The term “launch vehi-  
20 cle” means any vehicle constructed for the purpose  
21 of operating in or placing a payload in outer space  
22 or in suborbital trajectories, and includes compo-  
23 nents of that vehicle.

24 (9) PAYLOAD.—The term “payload” means an  
25 object which a person undertakes to launch, and in-

1 includes subcomponents of the launch vehicle specifi-  
2 cally designed or adapted for that object.

3 (10) PAYLOAD INTEGRATION SERVICES.—The  
4 term “payload integration services” means activities  
5 involved in integrating multiple payloads into a sin-  
6 gle payload for launch or integrating a payload with  
7 a launch vehicle.

8 (11) SPACE RECOVERY SUPPORT FACILITIES.—  
9 The term “space recovery support facilities” means  
10 facilities required to support activities related to the  
11 recovery of payloads returned from space to a space  
12 recovery site, including operations and control, com-  
13 munications, flight safety functions, and payload  
14 processing.

15 (12) SPACE TRANSPORTATION INFRASTRUC-  
16 TURE.—The term “space transportation infrastruc-  
17 ture” means facilities, associated equipment, and  
18 real property (including launch sites, launch support  
19 facilities, space recovery sites, and space recovery  
20 support facilities) required to perform launch or  
21 space recovery activities.

22 (13) STATE.—The term “State” means the sev-  
23 eral States, the District of Columbia, Puerto Rico,  
24 American Samoa, the United States Virgin Islands,  
25 Guam, the Northern Mariana Islands, and any other

1 commonwealth, territory, or possession of the United  
2 States.

3 (14) UNITED STATES.—The term “United  
4 States” means the States, collectively.

5 **§ 1703. Launch voucher demonstration program**

6 (a) REQUIREMENT TO ESTABLISH PROGRAM.—The  
7 Administrator shall establish a demonstration program to  
8 award vouchers for the payment of commercial launch  
9 services and payload integration services for the purpose  
10 of launching payloads funded by the Administration.

11 (b) AWARD OF VOUCHERS.—The Administrator shall  
12 award vouchers under subsection (a) to appropriate indi-  
13 viduals as a part of grants administered by the Adminis-  
14 tration for the launch of—

15 (1) payloads to be placed in suborbital trajec-  
16 tories; and

17 (2) small payloads to be placed in orbit.

18 (c) ASSISTANCE.—The Administrator may provide  
19 voucher award recipients with such assistance (including  
20 contract formulation and technical support during the pro-  
21 posal evaluation) as may be necessary to ensure the pur-  
22 chase of cost effective and reasonably reliable commercial  
23 launch services and payload integration services.



1 **§ 1704. Anchor tenancy and termination liability**

2 (a) ANCHOR TENANCY CONTRACTS.—Subject to ap-  
3 propriations, the Administrator or the Administrator of  
4 the National Oceanic and Atmospheric Administration  
5 may enter into multiyear anchor tenancy contracts for the  
6 purchase of a good or service if the appropriate Adminis-  
7 trator determines that—

8 (1) the good or service meets the mission re-  
9 quirements of the Administration or the National  
10 Oceanic and Atmospheric Administration, as appro-  
11 priate;

12 (2) the commercially procured good or service is  
13 cost effective;

14 (3) the good or service is procured through a  
15 competitive process;

16 (4) existing or potential customers for the good  
17 or service other than the United States Government  
18 have been specifically identified;

19 (5) the long-term viability of the venture is not  
20 dependent upon a continued Government market or  
21 other nonreimbursable Government support; and

22 (6) private capital is at risk in the venture.

23 (b) TERMINATION LIABILITY.—

24 (1) IN GENERAL.—Contracts entered into under  
25 subsection (a) may provide for the payment of termi-

1 nation liability in the event that the Government ter-  
2 minates such contracts for its convenience.

3 (2) FIXED SCHEDULE OF PAYMENTS AND LIM-  
4 TATION ON LIABILITY.—Contracts that provide for  
5 the payment of termination liability, as described in  
6 paragraph (1), shall include a fixed schedule of such  
7 termination liability payments. Liability under such  
8 contracts shall not exceed the total payments which  
9 the Government would have made after the date of  
10 termination to purchase the good or service if the  
11 contract were not terminated.

12 (3) USE OF FUNDS.—Subject to appropriations,  
13 funds available for such termination liability pay-  
14 ments may be used for purchase of the good or serv-  
15 ice upon successful delivery of the good or service  
16 pursuant to the contract. In such case, sufficient  
17 funds shall remain available to cover any remaining  
18 termination liability.

19 (c) LIMITATIONS.—

20 (1) DURATION.—Contracts entered into under  
21 this section shall not exceed 10 years in duration.

22 (2) FIXED PRICE.—Such contracts shall provide  
23 for delivery of the good or service on a firm, fixed  
24 price basis.

1           (3) PERFORMANCE SPECIFICATIONS.—To the  
2           extent practicable, reasonable performance specifica-  
3           tions shall be used to define technical requirements  
4           in such contracts.

5           (4) FAILURE TO PERFORM.—In any such con-  
6           tract, the appropriate Administrator shall reserve  
7           the right to completely or partially terminate the  
8           contract without payment of such termination liabil-  
9           ity because of the contractor's actual or anticipated  
10          failure to perform its contractual obligations.

11 **§ 1705. Use of Government facilities**

12          (a) AUTHORITY.—

13           (1) IN GENERAL.—Federal agencies, including  
14           the Administration and the Department of Defense,  
15           may allow non-Federal entities to use their space-re-  
16           lated facilities on a reimbursable basis if the Admin-  
17           istrator, the Secretary of Defense, or the appropriate  
18           agency head determines that—

19                   (A) the facilities will be used to support  
20                   commercial space activities;

21                   (B) such use can be supported by existing  
22                   or planned Federal resources;

23                   (C) such use is compatible with Federal  
24                   activities;

1 (D) equivalent commercial services are not  
2 available on reasonable terms; and

3 (E) such use is consistent with public safe-  
4 ty, national security, and international treaty  
5 obligations.

6 (2) CONSULTATION.—In carrying out para-  
7 graph (1)(E), each agency head shall consult with  
8 appropriate Federal officials.

9 (b) REIMBURSEMENT PAYMENT.—

10 (1) AMOUNT.—The reimbursement referred to  
11 in subsection (a) may be an amount equal to the di-  
12 rect costs (including salaries of United States civil-  
13 ian and contractor personnel) incurred by the  
14 United States as a result of the use of such facilities  
15 by the private sector. For the purposes of this para-  
16 graph, the term “direct costs” means the actual  
17 costs that can be unambiguously associated with  
18 such use, and would not be borne by the United  
19 States Government in the absence of such use.

20 (2) CREDIT TO APPROPRIATION.—The amount  
21 of any payment received by the United States for  
22 use of facilities under this subsection shall be cred-  
23 ited to the appropriation from which the cost of pro-  
24 viding such facilities was paid.

1   **§ 1706. Commercial Space Achievement Award**

2           (a) ESTABLISHMENT.—There is established a Com-  
3   mercial Space Achievement Award. The award shall con-  
4   sist of a medal, which shall be of such design and mate-  
5   rials and bear such inscriptions as determined by the Sec-  
6   retary of Commerce. A cash prize may also be awarded  
7   if funding for the prize is available under subsection (d).

8           (b) CRITERIA FOR AWARD.—The Secretary of Com-  
9   merce shall periodically make awards under this section  
10  to individuals, corporations, corporate divisions, or cor-  
11  porate subsidiaries substantially engaged in commercial  
12  space activities that in the opinion of the Secretary of  
13  Commerce best meet the following criteria:

14           (1) NON-GOVERNMENTAL REVENUE.—For cor-  
15   porate entities, at least half of the revenues from the  
16   space-related activities of the corporation, division,  
17   or subsidiary is derived from sources other than the  
18   United States Government.

19           (2) SUBSTANTIAL CONTRIBUTION.—The activi-  
20   ties and achievements of the individual, corporation,  
21   division, or subsidiary have substantially contributed  
22   to the United States gross national product and the  
23   stature of United States industry in international  
24   markets, with due consideration for both the eco-  
25   nomic magnitude and the technical quality of the ac-  
26   tivities and achievements.

1           (3) SUBSTANTIAL ADVANCEMENT OF TECH-  
2           NOLOGY.—The individual, corporation, division, or  
3           subsidiary has substantially advanced space tech-  
4           nology and space applications directly related to  
5           commercial space activities.

6           (c) LIMITATIONS.—No individual or corporate entity  
7           may receive an award under this section more than once  
8           every 5 years.

9           (d) FUNDING FOR AWARD.—The Secretary of Com-  
10          merce may seek and accept gifts of money from public  
11          and private sources for the purpose of making cash prize  
12          awards under this section. Such money may be used only  
13          for that purpose, only such money may be used for that  
14          purpose, and the Secretary of Commerce shall make pub-  
15          licly available an itemized list of the sources of such fund-  
16          ing.

17       **SEC. 4. CONFORMING AMENDMENTS TO OTHER LAWS.**

18          (a) TITLE 31.—Section 1304(a)(3)(D) of title 31,  
19          United States Code, is amended by striking “section 203  
20          of the National Aeronautics and Space Act of 1958 (42  
21          U.S.C. 2473)” and substituting “section 313 of title 51”.

22          (b) TITLE 35.—Section 210(a)(7) of title 35, United  
23          States Code, is amended by striking “section 305 of the  
24          National Aeronautics and Space Act of 1958 (42 U.S.C.  
25          2457)” and substituting “section 335 of title 51”.

1 (c) TITLE 49.—Title 49, United States Code, is  
2 amended as follows:

3 (1) Section 70117(b)(2) is amended by striking  
4 “the Land Remote Sensing Policy Act of 1992 (15  
5 U.S.C. 5601 et seq.)” and substituting “chapter 11  
6 of title 51”.

7 (2) Section 70301(1) is amended by striking  
8 “section 502 of the National Aeronautics and Space  
9 Administration Authorization Act, Fiscal Year 1993  
10 (15 U.S.C. 5802)” and substituting “section 1702  
11 of title 51”.

12 **SEC. 5. TRANSITIONAL AND SAVINGS PROVISIONS.**

13 (a) CUTOFF DATE.—This Act replaces certain provi-  
14 sions of law enacted on or before April 30, 2005. If a law  
15 enacted after that date amends or repeals a provision re-  
16 placed by this Act, that law is deemed to amend or repeal,  
17 as the case may be, the corresponding provision enacted  
18 by this Act. If a law enacted after that date is otherwise  
19 inconsistent with this Act, it supersedes this Act to the  
20 extent of the inconsistency.

21 (b) ORIGINAL DATE OF ENACTMENT UNCHANGED.—  
22 For purposes of determining whether one provision of law  
23 supersedes another based on enactment later in time, the  
24 date of enactment of a provision enacted by this Act is

1 deemed to be the date of enactment of the provision it  
2 replaced.

3 (c) REFERENCES TO PROVISIONS REPLACED.—A ref-  
4 erence to a provision of law replaced by this Act, including  
5 a reference in a regulation, order, or other law, is deemed  
6 to refer to the corresponding provision enacted by this Act.

7 (d) REGULATIONS, ORDERS, AND OTHER ADMINIS-  
8 TRATIVE ACTIONS.—A regulation, order, or other admin-  
9 istrative action in effect under a provision of law replaced  
10 by this Act continues in effect under the corresponding  
11 provision enacted by this Act.

12 (e) ACTIONS TAKEN AND OFFENSES COMMITTED.—  
13 An action taken or an offense committed under a provision  
14 of law replaced by this Act is deemed to have been taken  
15 or committed under the corresponding provision enacted  
16 by this Act.

17 **SEC. 6. REPEALS.**

18 The following provisions of law are repealed, except  
19 with respect to rights and duties that matured, penalties  
20 that were incurred, or proceedings that were begun before  
21 the date of enactment of this Act:



## Schedule of Laws Repealed

Date of Enactment	Public Law	Section	Statutes at Large		U.S. Code Citations (informational)	
			Volume	Page	Former Classification	Restatement
July 29, 1958	85–568	101	72	426	42:2451 note	None.
		102	72	426	42:2451	51:302.
		103	72	427	42:2452	51:303.
		201	72	427	42:2471 (prior)	None.
		202	72	429	42:2472	51:311.
		203(a), (b)	72	429	42:2473(a), (b)	51:312.
		203(c)	72	429	42:2473(c)	51:313.
		204	72	431	42:2474	None.
		205	72	432	42:2475	51:314.
		206	72	432	42:2476	51:315.
		207	72	432	42:2476a	51:316.
		208			42:2476b	None.
		302	72	433	42:2453	None.
		303	72	433	42:2454	51:331.
		304(a)	72	433	42:2455(a)	51:332.
		304(e)	72	435	42:2456	51:333.
		304(f)			42:2456a	51:334.
		305	72	435	42:2457	51:335.
		306	72	437	42:2458	51:336.
		307			42:2458a	51:337.
		308			42:2458b	51:338.
		309			42:2458c	51:339.
		310	72	438	42:2459	51:340.
		311			42:2459b	51:341.
		312			42:2459c	51:342.
		313			42:2459f	51:343.
		315			42:2459j	51:344.
		401			42:2481	51:361.
		402			42:2482	51:362.
		403			42:2483	51:363.
		404			42:2484	51:364.
June 15, 1959	86–45	4	73	75	42:2460	51:501.
Aug. 21, 1967	90–67	6	81	170	42:2477	51:582.

## Schedule of Laws Repealed—Continued

Date of Enactment	Public Law	Section	Statutes at Large		U.S. Code Citations (informational)	
			Volume	Page	Former Classification	Restatement
Sep. 29, 1969	91–76	1	83	124	42:2461 (1st par.)	51:541(a).
		2	83	124	42:2461 (last par.)	51:541(b).
July 30, 1977	95–76	6	91	315	42:2463	51:513.
Oct. 15, 1982	97–324	106(a)	96	1600	42:2464	51:551.
Dec. 5, 1985	99–170	201	99	1017	42:2466	51:561.
		202	99	1017	42:2466a	51:562.
		203	99	1017	42:2466b	51:563.
		204	99	1017	42:2466c	51:564.
Dec. 19, 1985	99–190	101(b) [title VIII, § 8111]	99	1185, 1222	42:2464a	51:552.
Oct. 30, 1987	100–147	201	101	869	42:2486 note	None.
		202	101	869	42:2486	51:701.
		203	101	869	42:2486a	51:702.
		204	101	870	42:2486b	51:703.
		205	101	871	42:2486c	51:704.
		206	101	872	42:2486d	51:705.
		207	101	873	42:2486e	51:706.
		208	101	873	42:2486f	51:707.
		209	101	874	42:2486g	51:708.
		210	101	874	42:2486h	51:709.
		211	101	875	42:2486i	51:710.
		213	101	875	42:2486k	51:711.
		214	101	875	42:2486l	None.
Aug. 19, 1988	100–404	(par. under heading “Science, Space, and Technology Education Trust Fund”)	102	1028	42:2467	51:571.
Nov. 9, 1989	101–144	(last par. beginning on p. 863)	103	863	42:2473b (1st par.)	51:514.

Nov. 16, 1990	101–611	(1st complete par. on p. 864) .....	103	864 .....	42:2473b (last par.) .....	None.
		112(a) .....	104	3198 .....	42:2465a(a) .....	51:553(a).
		112(b) .....	104	3198 .....	42:2465a(b) .....	None.
		112(c) .....	104	3199 .....	42:2465a(c) .....	51:553(b).
		112(d) .....	104	3199 .....	42:2465a(d) .....	51:553(c).
		203 .....	104	3206 .....	42:2465e .....	51:554(a).
		206 .....	104	3207 .....	42:2465f .....	51:554(b).
Oct. 28, 1991	102–139	(1st par. under heading “Administrative Provisions”) .....	105	771 .....	42:2459d .....	51:511.
Dec. 9, 1991	102–195	19 .....	105	1615 .....	42:2459e .....	51:512.
		20 .....	105	1615 .....	42:2467a .....	51:572.
		21(a) .....	105	1616 .....	42:2473e(a) .....	None.
		21(b) to (h) .....	105	1616 .....	42:2473e(b) to (h) .....	51:581.
Oct. 28, 1992	102–555	1 .....	106	4163 .....	15:5601 note .....	None.
		2 .....	106	4163 .....	15:5601 .....	51:1101.
		3 .....	106	4164 .....	15:5602 .....	51:1102.
		101 .....	106	4166 .....	15:5611 .....	51:1111.
		102 .....	106	4168 .....	15:5612 .....	51:1112.
		103 .....	106	4168 .....	15:5613 .....	None.
		104 .....	106	4170 .....	15:5614 .....	51:1113.
		105(a), (b) .....	106	4170 .....	15:5615(a), (b) .....	51:1114.
		105(c), (d) .....	106	4170 .....	15:5615(c), (d) .....	None.
		201 .....	106	4171 .....	15:5621 .....	51:1121.
		202 .....	106	4172 .....	15:5622 .....	51:1122.
		203 .....	106	4172 .....	15:5623 .....	51:1123.
		204 .....	106	4173 .....	15:5624 .....	51:1124.
		205 .....	106	4173 .....	15:5625 .....	51:1125.
		301 .....	106	4174 .....	15:5631 .....	51:1131.
		302 .....	106	4174 .....	15:5632 .....	51:1132.
		303(a) to (e) .....	106	4174 .....	15:5633(a) to (e) .....	51:1133.
		303(f) .....	106	4175 .....	15:5633(f) .....	None.
		501 .....	106	4175 .....	15:5651 .....	51:1141.
		502 .....	106	4176 .....	15:5652 .....	51:1142.
		503 .....	106	4177 .....	15:5653 .....	51:1143.
		504 .....	106	4177 .....	15:5654 .....	51:1144.
		505 .....	106	4177 .....	15:5655 .....	51:1145.
		506 .....	106	4177 .....	15:5656 .....	51:1146.
		507 .....	106	4178 .....	15:5657 .....	51:1147.
		508 .....	106	4179 .....	15:5658 .....	51:1148.
		601 .....	106	4179 .....	15:5671 .....	51:1161.
		602 .....	106	4180 .....	15:5672 .....	51:1162.

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		501	106	5122	15:5801	51:1701.
		502	106	5123	15:5802	51:1702.
		504(a) to (c)	106	5124	15:5803(a) to (c)	51:1703.
		504(d)	106	5124	15:5803(d)	None.
		506	106	5127	15:5805	None.
		507	106	5127	15:5806	51:1704.
		508	106	5128	15:5807	51:1705.
		510	106	5129	15:5808	51:1706.
		601	106	5130	42:2487	51:901.
		602	106	5130	42:2487a	51:902.
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		604	106	5131	42:2487c	51:904.
		606	106	5131	42:2487e	51:905.
		607	106	5131	42:2487f	51:906.
		608	106	5132	42:2487g	None.
Oct. 28, 1998	105–303	1(a)	112	2843	42:14701 note	None.
		2	112	2843	42:14701	51:1301.
		101(a)	112	2845	42:14711(a)	51:1311.
		101(b)	112	2845	42:14711(b)	None.
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		105	112	2852	42:14713	51:1313.
		106	112	2853	42:14714	51:1314.
		107(a)	112	2853	42:14715(a)	51:1315(a).
		107(b)	112	2853	42:14715(b)	51:1315(b).
		107(c)	112	2853	42:14715(c)	None.
		107(d)	112	2854	42:14715(d)	51:1315(c).
		107(e)	112	2854	42:14715(e)	51:1315(d).
		107(f)(1)	112	2854	42:14715, 15:5621	51:1121.
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		204(a)	112	2856	42:14733(d)	51:1333.
		204(b), (c)	112	2856	42:14733(b), (c)	None.
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		902 .....	116 1573 .....	42:14751 .....	51:1501.
		903 .....	116 1574 .....	42:14752 .....	51:1503.
		904 .....	116 1576 .....	42:14753 .....	51:1502.
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